NEW ENGLAND FARMER.

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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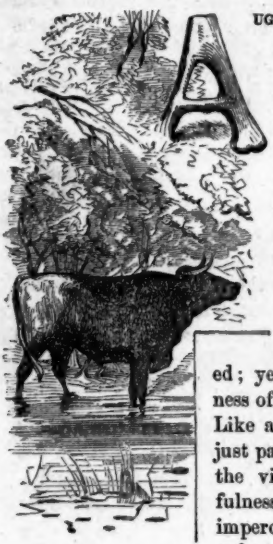
JOEL NOURSE, PROPRIETOR, OFFICE....QUINCY HALL. SIMON BROWN, EDITOR. FRED'K HOLBROOK, HENRY F. FRENCH, } ASSOCIATE EDITORS.

CALENDAR FOR AUGUST.

"The FARMER's life displays in every part
A moral lesson to the sensual heart."



AUGUST, the last of the Summer months, has come; the fulness of the year has past; the wheat, and some other important crops, are gathered; and though the potatoes, and other roots, the apples, the buckwheat and the golden corn remain to be harvested; yet the flush and fulness of the year are gone. Like a beautiful woman, just past her prime, when the vigor of health and fulness of outline are so imperceptibly touched as only to add new charms, so the vegetable kingdom compensates us for the loss of its robust habit in a thousand beautiful and unthought of shades and shapes. Indeed, "the whole face of Nature has undergone, since last month, an obvious change; obvious to those who delight to observe all her changes and operations, but not sufficiently striking to insist on being seen generally by those who can read no characters but such as are written in a *text* hand. If the general *colors* of all the various departments of natural scenery are not changed, their *hues* are; and if there is not yet observable the infinite variety of autumn, there is as little the extreme monotony of summer. The woods, as well as the single timber trees that occasionally start up with such fine effect in the midst of meadows and cornfields, we shall now find sprinkled with what at first looks like gleams of scattered sunshine lying among the leaves, but what, on examination, we shall find to be the new foliage that has been put forth since midsummer, and which yet retains all the brilliant green of the spring."

As we said of July, so we say of this month—it is peculiarly AUGUST-like. The general appearance of the country is unlike that of any other season. The mornings and evenings are sometimes a little chilly, then close, damp, "muggy," and hot, with a kind of suffocating influence on the sick, while the glaring sun at noon burns with fervent heat. These are the joyous hours, however, of the locusts, whose intense earnestness of song is only less fierce than the sun itself, and wakes the tired laborer too soon from his accustomed nap at noon. The air glistens with the radiated heat, fowls drop their wings, cattle stand in pools, or seek the shade of some friendly tree, standing singly on elevated land, where every breath may cool their heated sides. Dogs plunge into the water, while the cat seeks some dark corner, where neither sun or flies will torment, and sleeps quietly away the day. Young cocks begin to crow lustily, often starting their "pitch" a good deal too high, and break down before they have accomplished half the scale. Young bitterns occasionally show their javelin-like bills above the high grass, on the look-out for danger, as they leave their native meadows for some wider field of action. Crickets chirp solemnly in the evening, children crunch green apples and hate to go to bed, though the latter only is *not* peculiar to the season.

Those who observe, will notice that *August* is not July or September; that it has its appropriate functions, as have all the other Months, and that it is devoted to the discharge of them.

All is *August*-like. The birds have reared their young, and taught them, *to perfection*, how to fly, how to provide their food, how, in their turn, to build and lay and rear their young, and when to leave their native land and flee to kindlier

skies; that is, they have attained all they need, to enable them to fulfil the object of their existence. Brief lessons, yet how perfectly acquired, and how competent to enable them to gratify their wants.

The Dog-Star rages. The air seems to lose its freshness and elasticity—the heat is more oppressive than ever—man and his animals get tired sooner than in July, and the returning Sabbath is welcomed with grateful delight.

> "How sweet the Sabbath wakes its rest again!
> And on each weary mind what rapture dwells,
> To hear once more the pleasant chiming bells,
> That from each steeple, peeping here and there,
> Murmur a soothing lullaby to care."

Appropriate and peculiar duties also belong to August. The first of the month may be improved to get in a crop of flat turnips, where circumstances have prevented its being done earlier. *Superphosphate of lime* will be an excellent manure for them, if the barn manure is not to be had. Let the sowing immediately follow the harrowing, while the soil is fresh and moist. Thin them early and hoe frequently, and a good crop may be expected. Nothing will prove more advantageous to your milch cows than a plentiful supply of roots with their winter feed. They largely increase the flow of milk, and keep the system in a healthful condition. If there is a mixture, comprising turnips, beets, carrots, parsnips, ruta bagas and mangels, so much the better.

If the hay crop proves short, sow a liberal breadth to turnips, in order to make up the deficiency.

Weeds.—Keep down the weeds. Each fully-developed dock, or wormwood, sorrel, mullein or mallows, leaves seeds sufficient to propagate its kind for years to come. The thorough cultivation of *this year* lessons the labor of the next, and gives vigor and weight to the crop now under your hands. Do not "lay down the hoe" yet. What a proud moment it is, when the best farmer in your neighborhood declares to you that a handful of weeds cannot be found in your six acre lot of potatoes and corn! Weeds perpetuate their kind, steal nutrition from the crop and exhaust the soil. Who can afford to let them grow?

Haying.—Some persons do not cut their meadows—that is, low land bearing an inferior grass—until late in August, or even September. But these grasses are far more valuable cut as soon as they are in bloom, made as little as possible, so that they will keep, and put away with three or four quarts of salt per ton. Cattle will eat one or two fodderings of this each day in preference to feeding entirely on good upland hay. It affords a variety, and they like this as well as the rest of us.

Pastures.—There is a general belief that August is the favorable month for cutting bushes. How that is, we do not know. But it is evident that a vast amount of labor is annually expended in "bush-whacking," and it is labor that *will not stay done*. In a summer or two they are up again as large as ever, and the work must be done over again. Now suppose an experiment is made, and the results watched, so as to know what advantages may be derived from it? Burn the bushes on a single acre after they are cut, and then plow as well as it can be done, say two, three or five inches, and apply some sort of manure—guano, bone-dust, or superphosphate, if other is not to be had. We should prefer the bone-dust, 500 pounds to the acre, and then sow a mixture of grasses, in which white clover seed should make a part. Will some person make this experiment, and let us know whether it proves better than the annual cutting of bushes?

Draining.—Our summer droughts usually afford a fine opportunity in August to ditch and drain the wet portions of the farm. Let it be improved.

Meadow Muck.—No one thing has wrought higher advantages to the farmer, than the exchange of a portion of his sunken swamp land to the high ground, and returning some of the sand and gravel to the low. It greatly benefits both. It is not necessary to recapitulate these advantages here, but only to suggest that the time is at hand.

As an absorbent to the manure heap, meadow muck is worth, at least, $2,00 per cord, where the farm contains what is usually denominated plain land.

California Trees.—The *San Joaquin* (Cal.) *Republican* tells some famous great stories about the mammoth trees of Calaveras County. In one grove of them, it says, there is a first-class hotel well fitted up, and with fine accommodations for travellers. Near the hotel is a building eighty feet long by fourteen feet wide, divided into two fine bowling alleys and built upon the top of a fallen log! The lower part of the log, which is separated from the main portion, is placed on end, and is to be hollowed out and converted into a spacious ball-room more than thirty feet in diameter.

Trees for Railroads.—The *Chicago Press* says that the Illinois Central Railroad Company have contracted for the planting of three rows of locust trees on each side of the Illinois Central Railroad for the distance of one hundred and twenty miles. The rows are to be set eight feet apart, and the trees three feet from each other. In eight years, it is said, the trees will furnish ties in place of those which have become rotten. They will also furnish a delightful shade in summer, and a protection from the snow drifts in winter.

For the New England Farmer.

PREJUDICE AGAINST FARMING.

Messrs. Editors:—Having taken your paper for a year or two, I have become much interested in agriculture, and *long* for the day when I can leave my office and give to it my energies, care and thoughts. To me, no employment seems more ennobling. None, I am satisfied, is more conducive to true manliness, citizenship and strict morality. With the farmers rest the welfare of our nation; with them rest sound morality, patriotism,—all the cardinal virtues and the well-being of the republic. Oh that they were fully aware of all this. Could they *realize* it so, and *feel its truthfulness* in all its length and breadth, a great change would be manifest. Formerly it was thought *dishonorable*, *low and stupid*, to till the soil. A farmer was an ignoramus, a mere "plow jogger," one with "huge paws" who knew but little, was rough, unlearned, and half-civilized. This impression prevailed to a very great extent. Prejudice had its full sway, and the farmer was spoken of with ridicule and sneers. This silly notion, which prevailed extensively, had a most powerful and injurious influence. No farmer's sons would be a "plow jogger." They were too ambitious to be called dumps, blockheads and ignoramuses. Too proud to till the soil amidst the sneers and jeers of these who "put on airs," and made it in their line to "look down upon them," they sought other employment. The consequences have been manifest, viz: too much competition in manufactures, in merchandizing, the professions, and so on, and a great *scarcity* of the real and absolute necessaries of life. These things will, in time, regulate themselves. The prejudice which has existed against farmers and farming is rapidly passing away. Ten years have accomplished much; ten more, with the aid of the press and with high prices of products, will do still more. There is, occasionally, however, a deep prejudice against "book" or "newspaper farming." This prevails, in many places, amongst "old fashioned" farmers, and to me it appears so unsatisfactory and so unsound, that I am half inclined to read them a "Caudle lecture" upon it, for it is tantamount to saying, there can be no improvement, no progress; that one man's mind contains all the knowledge there is, suggestions from others are of no account, "we know it all," and therefore shall continue in the "old beaten path", as we have done for years. Our fathers did so and so. Mr. So-and-so did so, and Capt. Success did so too, and what more do you want? "Let well enough alone." Continue to put the grist in one end of the bag, and a stone to balance it in the other, because our fathers did, or Mr. Snipes or Smith did so! This is a changing world, one of progress and *real* improvement. We never *stand still*, be assured of this, and he who through prejudice or ignorance perseveres in "old notions," when new and *better* ones are apparent, is, it seems to me, "a *little* behind the times." Mr. Progress will, you may be assured, outstrip you. Why not freight by four horse teams at a *dear* price your produce hundreds of miles instead of availing yourselves of *cheap* transportation by canals and railroads? Why not cut all your grain and grass with the hand scythe,—the "old and good fashioned way," instead of using the mowing or the reaping machines! Why not thrash with the frail instead of using any of the modern inventions to accomplish the same result within one-fourth of the time, and with one-half of the expense? Why not sow all of your seeds by hand, instead of using machines? This list might be greatly increased, but enough for the illustration.

Give me, I say, suggestions, give to me the results of others' watchfulness, vigilance, industry and knowledge, give to me the result of many valuable *experiments* by others, which may have cost them hundreds and thousands of dollars to test and make sure, and which are given to us in return for the merest *trifle*.

Let no one get so well-informed as to reject suggestions, none so ignorant as to *fear* to read, reflect and digest. The bee gathers *sweet* from every flower. May we not, in the like manner, gather valuable ideas from others' suggestions and experiments? Like the bee, we can extract the *sweet*, leaving the bitter and poisonous.

Burlington, Vt., June. A Subscriber.

THE RAIN CONCERT.

Millions of tiny rain-drops
Are falling all around;
They're dancing on the house-tops,
They're hiding in the ground.

They are fairy-like musicians,
With *any thing for keys*,
Beating tunes upon the windows,
Keeping time upon the trees.

A light and airy *treble*
They play upon the stream,
And the melody enchants us
Like the music of a dream.

A deeper *bass* is sounding
Where they're dropping into caves,
With a *tenor* from the zephyr,
And an *alto* from the waves.

O 'tis a shower of music,
And Robin don't intrude
If, when the rain is weary,
He drops an interlude.

It seems as if the warbling
Of the birds in all the bowers
Had been gathered into rain-drops,
And was coming down to showers.

The blossoms are all bathing
In the liquid melody,
Breathing thanks in sweetest odors,
Looking up into the sky. C. B.

To Correspondents.—We have now on hand numerous articles from correspondents, discussing with ability a variety of subjects, together with many inquiries, which will all be attended to as space in our columns and opportunity to reply permits. These attentions, by correspondents, are a constant source of encouragement to us, and must result in great benefit to the reader. The *Farmer* was never so prosperous as at the present moment, and we may reasonably impute much of this to the ability and constancy of its large and able corps of contributors.

MARLBORO', MASS.

This ancient town is one of the most beautiful in the Commonwealth. Its people are intelligent, enterprising and industrious, who maintain excellent schools and the ordinances of religion, and in their political predilections are actuated more by the principles of humanity than by a course of policy merely calculated to sustain a party rule, or share in the general honors and emoluments of office.

A portion of the town is quite attractive, from its varied surface, and its excellent and highly-cultivated lands; its sweet pasturage on the hills and its rich grasses that clothe the sweeping meadows. In past times the cultivated lands have been so admirably managed, and the crops produced so abundant, as to entitle her to the credit of the second best agricultural town in the State! This was a compliment, not only to the industry and skill of her people, but, as we have never known a high degree of agricultural success attained in a licentious or indolent community, it was as much a commendation of the morals and manners of the people. But Marlboro' has other attractions, in the well-arranged and well-finished dwellings of her homesteads—in the fine barns that shelter her ample crops, her noble oxen and prolific cows, and in the productive orchards that covered the slopes of her moist and rich hill-sides. Next to her grass-fields, these orchards *were* the beautiful features which attracted the attention of the traveller, both from our own people, as well as those from more distant lands. Marlboro', then, has been as nearly a perfect little republic as could be found. Adam Smith might have pointed to it as a model. But Marlboro' now, must look well to her laurels or they will be wrested from her!

In visiting the State Farm at Westboro' during the last two or three years, we have had occasion repeatedly to pass through this town, and to notice with some care the evidences of thrift or decline which might meet the eye of the traveller. And the indications of either thrift or decline are obvious to a casual observer; thrift in a fluctuating and uncertain business, which may excite competition between, and bring profit to a few, and decline, in that noble art underlying and sustaining all others, which fosters virtue, strengthens the affections, rears the school-house and the church, and embellishes and beautifies the country. The attention and care of her people are evidently divided. Whether they are generally affected, or mostly those living upon the line of the great roads, we are not able to say.

There is probably no land in New England more favorable to the cultivation of fruit than the hills and broad swells of Marlboro', and none which has produced more profit under a liberal and judicious cultivation. What has been our surprise, then, for two or three years past, to see these noble old orchards defoliated, poisoned, and become loathsome to the sight, by allowing *caterpillars* to fatten upon their foliage, and perpetuate their millions to plague and prey upon them again! How short-sighted must be the notions of economy of any man, who thus suffers a whole crop to be torn from his possession, after the labor and care of many successive years have nearly completed it, to drop in bountiful fruition into his open hands! It is a policy at once discreditable to the noble art in which he is engaged, and to his own judgment.

The labor of an active man for *two days*, divided into periods of two hours each at the proper time, would entirely destroy the caterpillars from an orchard of two hundred trees, and thus leave them free to gladden the heart of their owner and the eye of the traveller, and to perfect the crop of fruit. Two poles of unequal length, with a spiral brush on one, and a bunch of rags on the other, and a bucket of soap suds, are all that is needed. Ply these industriously, morning and evening, for a short time, and the orchard and fruit is safe, at least from the common caterpillar. Yet in the beautiful town of which we have spoken, whole orchards are, to-day, as barren of leaves as they were in March, while their limbs are covered with the web, the exuviæ and rotten carcasses of legions of caterpillars, until they taint the air and become an offence to the nostrils.

Of course, nothing but a crop of sorrow and regrets can be reaped there. If the loss of the present year's crop were all, the evil would be less—but it is not so. The tree loses a year's growth, and the ugly race is perpetuated to come again and torment their propagators.

For the New England Farmer.

GREAT YIELD OF POTATOES FROM ONE BUSHEL OF SEED.

Mr. Editor:—It seems a matter yet undetermined, notwithstanding all the talk, and even all the various experiments that have been made, whether it is wisest to plant large potatoes or small potatoes, cut or uncut, and whether we should "seed light" or "seed heavy." A fact that lately came to my knowledge in regard to the subject of "seeding," and of a very large yield of potatoes for the amount planted, may not be uninteresting to your readers, and, perhaps, may also shed some light on this matter.

As I was visiting, a few days since, the beautiful grounds and very rich and extensive nurseries of my friend, B. M. Watson, Esq., of Plymouth, a fact was communicated to me in regard to a yield of potatoes the last season of severe drought, that struck me as being very extraordinary and worthy of notice. Mr. Elias Thomas,

Jr., of Plymouth, cut a bushel of peach-blows—the same, I suppose, with what are called further west Sand-lakes—*into eyes*, and planted them on good land, seeding very lightly. And from that single bushel, thus divided into eyes, what, think you, Mr. Editor, was the yield? No less than *seventy-one* bushels of *first-rate potatoes*. I have this statement from Mr. Watson, Mr. Thomas's neighbor, corroborated by the testimony of other and most trust-worthy individuals. What will some of our most scientific New York editors say to this matter of light seeding, thus illustrated, those especially who are such sticklers for planting the tubers *whole?*

And now, Mr. Editor, I have one question to put to you. Can you tell me if there is any *white* potato that is as prolific as the *red* or *yellow* sort, or that will bear comparison with the Sand-lakes? And can you inform me how the Seal's Foot, State of Maine, and Dover stand in regard to abundant yield? I have never tried either of them very extensively till the present year. Respectfully yours,

JAMES RICHARDSON, Jr.

Kingston, June 16, 1855.

A FEW HINTS ON BUDDING.

A VALUABLE AND TIMELY ARTICLE.

Budding, or *inoculation*, is one of the most general, and, in this country, by far the most important method of summer propagation. This operation consists in removing a bud from the variety to be propagated, and inserting it on another which is called the stock. Its success depends upon the following conditions: In the first place, there must be a certain degree of affinity between the stock and the parent plant from which we propose to propagate. Thus, among fruit trees, the Apple, Crab, Pear, Quince, Mespilus, and Mountain Ash, all belong to the same natural family, and may be worked upon each other. The Plum, Apricot, Nectarine, Peach and Almond, form another natural division, and work upon each other. The Cherry must be worked upon some kind of Cherry, and Currants and Gooseberries go together. In general practice the Apple is worked either upon Apple seedlings, which are called free stocks, or upon the *Doucain* or *Paradise*, which are dwarf growing species, and are used for the purpose of making small trees. The Pear is worked either upon Pear seedlings, which are called free stocks, or upon the Quince, to make dwarfs; occasionally it is worked upon the Mountain Ash and Thorn. But it must be borne in mind that while all varieties succeed on the Pear seedling, a certain number fail entirely on the other stocks we have named. Lists of such as succeed particularly well on the Quince will be found in previous numbers of the *Horticulturist*. The Cherry is worked either upon seedlings of what is known as the *Mazzard*, a small, black, sweet cherry, that form a very large, robust tree; or for dwarfs, on the *Mahaleb*, or perfumed cherry, which is a small tree with bitter fruit, about as large as a common pea.

In the second place, the buds must be in a proper state. The shoot, or scion budded from, must be the present season's growth, and it should be mature—that is, it should have completed its growth, which is indicated by the formation of a bud on the point, called the *terminal bud*, and the buds inserted should all be wood buds. On a shoot of this kind there are a number of buds unsuitable for working; those at the base being but partially developed, are liable to become *dormant*, and those on the point, where the wood is pithy, perish. The ripening, or maturing of the buds, must regulate the period of budding, so that the time at which any given tree or class of trees should be worked, depends upon the season, the soil, and other circumstances which control the ripening of wood. In our climate, plums usually complete their growth earlier than other fruit trees, and are, therefore, budded first; we usually have ripe buds by the middle of July. In some cases, when the stocks are likely to stop growing early, it becomes necessary to take the buds before the entire shoots have completed their growth, and then the ripe buds from the middle and lower parts are chosen. Cherries come next, and are generally worked about the first of August. The buds *must* be mature, or a failure will be certain.

In the third place, the stock must be in the right condition—that is, the bark must lift freely and cleanly from the wood, and there must be a sufficient quantity of sap between the bark and wood to sustain the inserted bud and form a union with it. Stocks, such as the common sorts of plum, pear, and cherry, that finish their growth early, must be worked early; while such as the Peach, Quince, wild or native Plum, *Mahaleb* Cherry, &c., that grow late, must be worked late. If these stocks that grow freely till late in the autumn be budded early, the buds will either be covered up—"drowned," as it is technically called—by the rapid formation of new woody substance, or they will be forced out into a premature growth.

A very great degree of sappiness, in either the stock or bud, make up, in part, for the dryness of the other. Thus, in the fall, when plum buds are quite dry, we can work them successfully on stocks that are growing rapidly. This is a very fortunate circumstance, too. Young stocks, with a smooth, clean bark, are more easily and successfully worked than old ones, and when it happens that the latter have to be used, young parts of them should be chosen to insert the bud on.

In localities where buds are liable to injury from freezing and thawing in the winter, the buds are safer on the north side of the stock, and when exposed to danger from wind, they should be inserted on the side facing the point where the most dangerous wind blows from. Attention to this point may obviate the necessity of tying up, which, in large practice, is an item of some moment.

In the fourth place, the manual operation must be performed with neatness and dispatch. If a bud be taken off with ragged edges, or if it be ever so slightly bruised, or if the bark of the stock be not lifted clean without bruising the wood under it, the case will certainly be a failure. The budding-knife must be thin and sharp. A rough-edged razor is no more certain to make a painful shave, than a rough-edged budding-knife is to make an unsuccessful bud. It takes a good knife, a steady hand, and considerable practice to cut off buds handsomely, well, and quick. As to taking out the particle of wood attached to the bud, it mat-

ters little, if the cut be good and not too deep. In taking out the wood, great care is necessary to avoid taking the root of the bud with it. Then, when the bud is in its place, it must be well tied up. Nice, smooth, soft strips of bark, like narrow ribbons, are the best and most convenient in common use. Every part of the cut must be wrapped so firm as to exclude air completely; and this should be done as quickly as possible, as the air soon blackens the inner surface of the new parts that are placed in contact.

We have thus stated briefly, for the benefit of beginners, the chief points that require particular attention in budding, or inoculation. Amateurs, who have little to do, should choose the mornings and evenings, or cloudy, cool days, to do their budding; but nurserymen must work in all weathers, and in all hours of the day; but their superior skill and quickness renders it less hazardous. When only a few stocks are to be worked, and the weather happens to be dry, a thorough watering or two will be of great service in making the bark lift freely.—*The Horticulturist.*

For the New England Farmer.

"TRAINING HORSES FOR THE SADDLE."

To sit on horseback, the rider should retain a uniform position from the waist to the knee. The changes in position and bearing are obtained by the movements of the body above the waist, and of the legs below the knee.

Keeping your seat, depends upon keeping the centre of your weight in a line with the legs of your horse, as seen from front or rear, and, therefore, at the same angle with the ground as his own weight, bears in all his movements.

When the horse, at speed, wheels, he inclines his body to the side he turns to, and thereby resisting the impetus of his velocity in the former direction. If you incline your body with his, you keep your centre of gravity at the same angle with the ground as the horse's weight rests, and are not forced out of the saddle by your own momentum.

The skill of the horseman (acquired by practice,) enables him to anticipate the movements of the animal, and be so placed at every change of motion, that his own weight does not throw him when the horse attempts to dismount the rider.

You communicate your orders to the horse, and inform him of the movement required, by inclining your body toward the attitude you should have when he obeys, and enforce his obedience by the spur or the bit.

If, at a halt, you wish to move forward, or, on the march, wish to increase his speed, a slight inclination of the body forward and drawing back of the feet, will notify the horse of your intention, and place you in a position to apply the spur, and resist the effect of any violent spring that might be made by a restive horse.

The horse, after a little practice, moves without waiting for the spur to prick him. When he obeys, resume your former position.

On the march, if you wish to slacken your speed, or halt, the backing the upper part of the body and putting forward the feet, (more or less, in proportion to the extent of the change,) will notify the horse of your order, and prevent you being thrown forward when he obeys.

He will slacken his speed, or halt, without waiting for the powerful strain of the bit, especially if his mouth has not been calloused by a rider who tries to keep his seat by hanging on to the reins. Be careful not to spur or rein without an object. Let the horse know that no pain follows his prompt obedience.

If you wish to wheel to the right or left, a slight inclination of the body, a pressure of the rein in that direction against the neck, and a movement of the *leg on that side* as to apply the spur, will move the fore quarters of the horse toward and the hind quarters from it. In general, the movement will be done before the rowel touches the skin.

When you leap a fence, as the horse rises on his hind feet, you incline your body forward and lower your feet, to get your weight to the same bearing as his own on the hind legs that support him. Your preparing yourself for the leap when he sees the obstacle, notifies the horse of your intention, and he will spring without waiting for the spurs, which he knows enforce all movements to the front. When the horse leaps, you keep your body in the same vertical position, as he changes his bearing from the hind legs to the fore, bringing your shoulders back and your feet forward, to resist the shock when his fore feet strike the ground. All movements are performed by the horse with more or less rapidity, as the rider's movements are more or less accelerated.

Passaging.—To move sideways at a halt (to close an opening or clear an obstacle,) before moving forward, move the bridle hand toward the object you wish to approach, and apply the *opposite* spur. The horse will then move up without advancing or falling back. As this is the most difficult motion to teach the horse, he should be first well trained in the other movements. He should be trained to close up with other horses, a pace or two from him, or move up to a gate he is to pass through, that he may understand what is wanted.

A horse can be readily trained so that the rider can command his position while seated in the saddle as readily as if he stood on the ground, and with a horse's rapidity added. The horse will change his position to suit the direction you wish to point the carabine or the telescope, as though the rider's eye and the horse's legs were parts of the same body. GUIDON.

For the New England Farmer.

DOES THE MOON INFLUENCE VEGETATION?

MR. EDITOR:—I have read the commentaries in your paper on "lunar influences," and must confess that I do not perceive any good reason for changing the opinions heretofore entertained. I should as soon think of consulting the book of Job to ascertain the influence of Orion and the Pleiades on the growing of Indian corn, or the book of Deuteronomy to determine the effect of the moon on the cutting of bushes. My recollection of the article of February 17, referred to, is very imperfect; but, if I remember right, it brought to mind a remark of the late Col. Pick-

ering on the same subject, which I always thought strikingly expressive. Some facts, more to the point than any yet cited, will need to be produced before I shall be disposed to admit the direct influence of the moon on the growth of vegetables of any kind, or the health of persons. We have quite enough of superlative fertilizers on earth, at the present time, without resorting to the moon for an addition.

June, 1855.

EXTRACTS AND REPLIES.

THE GRUB WORM.

Will you inform me what is the best preventative for the grub worm upon flower and other roots, and more particularly the former, through your paper, as I am greatly annoyed with them the present season?

Lowell, June, 1855.

REMARKS.—There is much complaint of the ravages of the cut or grub worms this season, and the question is often asked, How shall they be destroyed? Who can answer it? On flower roots, or any plants cultivated in small quantities, a personal examination would be effectual, as they may be easily found by a little digging. But no remedy readily applied to fields is known to us.

CURE FOR BLACK LEG.

WM. BETHEL, of Queeche, Vt., says that this disease may be cured by cuttiug an incision in the "little hollow" above the foot and inserting bruised garlic. He had seen it done. After inserting the garlic, sew up the incision.

WHAT SHEEP ARE BEST?

MR. EDITOR:—What breed of sheep will make the most pounds, mutton being the greater object and wool the less? Where are they to be obtained, and at what probable price? What is the best work upon the subject of raising and managing sheep, and where may it be had?

WILLIAM IRISH.

Hartford, Me., June 5, 1855.

REMARKS.—Although having had considerable experience in the rearing of sheep, so much time has elapsed since, and so many varieties introduced, we do not feel justified in giving unhesitating opinions on the questions propounded. Among experienced breeders, opinions are somewhat at variance as to what particular breeds are best.

"In the "Farmer's and Planter's Encyclopedia," there is a capital article on sheep. "YOUATT, on Sheep, their Breeds, Management and Diseases," is a comprehensive and excellent work, and "The American Shepherd," by L. A. MORRELL, giving a history of the sheep, and illustrated with portraits of different breeds, is another. This work also contains many letters from eminent wool-growers and sheep-fatteners of different States, detailing their respective modes of management.

RECLAIMING MEADOW LAND.

MR. EDITOR:—I should be very glad to be told the best method of procedure, and what is the best crop for a piece of low, sandy, damp land, and whether chip dust and ashes would be worth drawing in as a dressing for it? Said land is very flat, and is bordered on one side by a mill pond, and is not more than eight or ten inches above the water when the pond is full. You would also oblige me, and some others in this vicinity, by giving the prices of the three small seed drills shown in your paper a few weeks since.

Plymouth, 1855. RALPH.

REMARKS.—The best use to be made of such land, is, probably, to get it into grass. Plow thoroughly, and then apply your chip dirt and ashes, which will be a capital dressing. Add other manure, if you can, and work it under; then sow your grass seed. You will remember, however, that *drainage* is the first operation. If the water from the pond backs up and underlies the land you speak of, get all you can from it as pasturage and cultivate somewhere else. The prices of the seed-sowers, which we published a few weeks ago, are $3,00, $6,00, and $10,00 respectively.

HOLDING UP THE MILK.

MR. EDITOR:—Will you, or some of your able correspondents, through the medium of your valuable paper, inform a young farmer of the best method of treating a cow which has acquired the habit of holding up her milk? I have tried every thing that I can think of, yet it does no good whatever. She is an extra cow in all other respects, so I do not like to turn her for beef. By answering the above inquiry, you will greatly oblige G. W. C. D.

Hanover, N. H., June 15, 1855.

REMARKS.—Feed well, so as to cause an abundant flow of milk, then treat her kindly, and while milking allow her to eat a little meal and water, a handful of fresh grass, or some dainty morsel, and she will soon get into the habit of "giving down" freely.

A PLOW FOR STONY SOIL.

MR. EDITOR:—In perusing the May number of the *Farmer*, I noticed an article from a "Tiller of Hard and Stony Soil," wishing to know if there is "a plow in the whole world manufactured for the express purpose of tilling stony soil." I noticed, also, in the same number, several answers, all recommending the Eagle plows of Ruggles, Nourse, Mason & Co. I think them far preferable to the old-fashioned plows; but I have been using, for the past two or three years, a plow invented in this town, and I think for the "express purpose of tilling a stony soil;" if not, I am sure it would be hard getting one that would work better. It is called the Iron Beam Plow, and is manufactured and for sale by Simonds, Durand & Co., of this town. It is a side-hill plow, and, like any other, works better on smooth land than rough; but for stony, uneven, hilly, or flat land, it is certainly the "one

thing needful;" and if he or his neighbors should see fit to try it, I think they must be satisfied with the result. J. B. FREEMAN.

Lebanon, N. H., June 18, 1855.

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GREEN LICE ON FRUIT TREES.

MR. EDITOR:—Will you inform me of the best remedy for the destruction of green lice on young fruit trees, and confer a favor on S. S. H.

Waterford, Me., 1855.

REMARKS.—We have never found these insects essentially destructive to the foliage of trees. They may be destroyed by a sprinkling of whale-oil soap, perhaps common strong soap-suds, or by sifting ashes over them.

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PLOWING—MANURING—GUANO.

MR. EDITOR:—In looking over the June number of the *Farmer*, I find an article from "Agricola" on plowing, and I wish to ask if he means to be understood that by plowing alone we can raise good crops? As I am not much experienced in farming, I wish to inquire of you, or some one, who will be kind enough to answer the following question: When is the best time to plow, and when should the manure be put on? Should it be before it is plowed, or after it has been plowed, if it is to be plowed a second time?

If guano will kill plants, if too much is applied, will it kill the brake that grows in our pastures? If so, will any thing else (as grass) come in to take its place?

In plowing land, is it best to work on one piece until it is fit to sow or plant, or let it lay and warm before it is further worked upon?

Is it beneficial to roll land when it is sowed, whether it is lain down to grass or not?

A SUBSCRIBER.

Ludlow, Vt., June 2, 1855.

REMARKS.—The above are questions of importance, and we should be glad to have "Agricola" reply to them himself.

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HOW SHALL I USE BLACKSMITH'S CINDERS?

MR. BROWN:—Will you, or some of your correspondents, through the medium of your paper, inform me the best use which I can make of some ten cart-loads of cinder and dirt, such as is usually thrown out of a blacksmith's shop? What kind of soil will it benefit most, wet or dry, light or heavy? Or what crops is it best adapted to as a dressing? Will it be useful to put around apple and other fruit trees?

Chester, N. H., 1855. L. F.

REMARKS.—Will some correspondent reply to these inquiries who has a practical knowledge?

USES OF TOBACCO.—In the United States, physicians have estimated that 20,000 persons die every year from the use of tobacco. In Germany the physicians have calculated that, of all the deaths which occur between the ages of 18 and 26, *one-half originate in the waste of the constitution by smoking*. They say that the article exhausts and deranges the nervous powers, and produces a long train of nervous diseases, to which the stomach is liable, and especially those forms that go under the name of dyspepsia. It also exerts a disastrous influence on the mind.

For the New England Farmer.

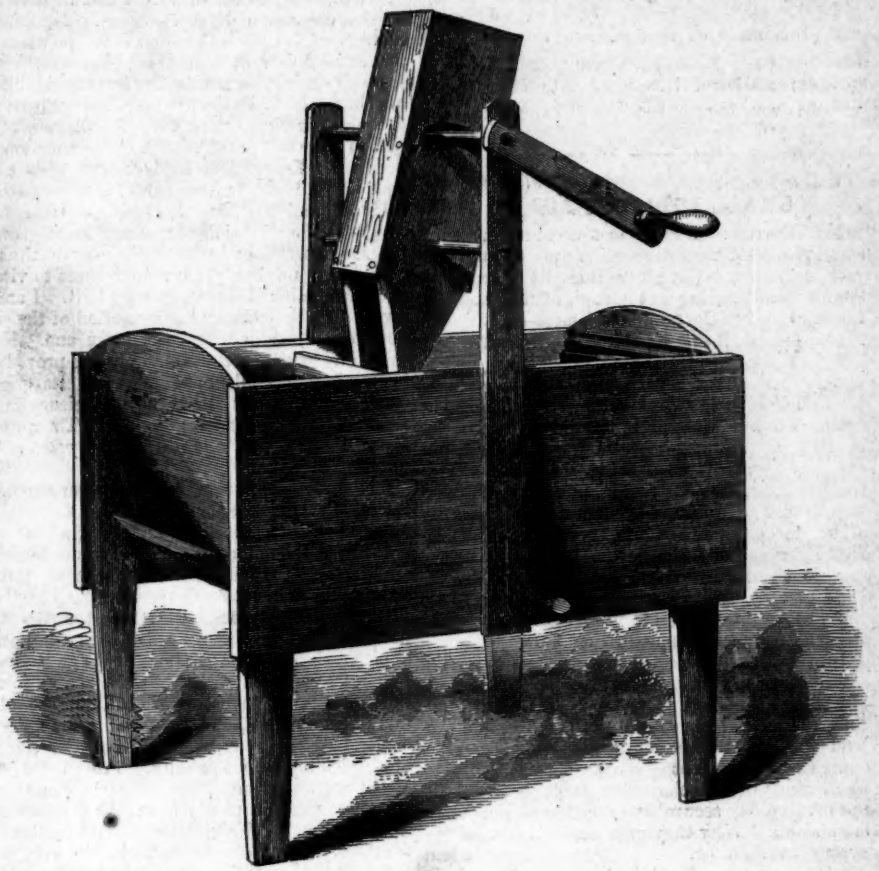
AGRICULTURE IN MAINE.

MR. EDITOR:—I have penned a few facts in regard to the agricultural interest of Maine, which you are at liberty to publish, if you feel so disposed. The present extravagant price of breadstuffs has at length aroused the farming comunity of this State from their agricultural lethargy, to a consciousness of their dependence on the southern and western States for bread. And they have resolved that if provisions retain their present prices another year, to be the gainers thereby. There has been more planted in Maine, this year, by one-third, perhaps I may be justified by saying one-half, than any previous year for ten years past; and I am led to suppose that Maine will now take a deeper interest in farming than she ever has before, from the fact, that for years past the agricultural portions of our State have had other resources than farming,—that of lumbering. Lumbering has been the chief cause of the neglect which a very large majority of our farms exhibit. That, however, in most of our farming districts, is growing scarce. This, with the present high price of provisions, renders it highly necessary that our agricultural friends should take more interest and display more energy in farming than they have heretofore. A very large portion of our land has become exhausted and almost worthless from continually taking away from the soil, without returning anything in the shape of manures. Consequently an extra effort will have to be made to renovate such lands. Another hindrance to the promotion of agriculture in this State is, that a great many who farm it are decidedly behind the times. You talk to them of *muck*, which is a very common fertilizer, and they will deny its fertilizing qualities, and pronounce it one of the humbugs of book-farming.

Last winter I hauled a load of sawdust from a neighboring mill to litter my cattle with. One of my neighbors was present, who, perhaps, had farmed it fifty years; he inquired what use I should make of it; on learning that I was going to bed my cattle with it, he expressed much surprise, and inquired *if it would not spoil the manure*. There is an immense quantity of swamp land in Maine, which might be cleared and drained, and rendered very valuable as grass lands, which are considered by many as worthless, and are left for foul weeds and all kinds of shrubbery to spring up and *decorate* the farm.—There are some, however, who appreciate the value of such lands, and are not afraid of investing a sum requisite to reclaim them into fine meadows of grass, which amply pay for their time and trouble, and a good profit besides.

Maine has every facility for becoming one of the first farming States of New England. Her soil is good—her sons hardy. But farming has been considered, here as elsewhere, a low occupation, and those that till the soil have been looked upon as little better than the slaves of the south. They begin, however, to look at it in a different light, and the time is not far distant when it will be considered a *science*, and brought on an equal with other professions. J. M.

Searsmont, Me., June 15, 1855.



WHEELER'S PATENT WASHING MACHINE.

We have said a good deal in the *Farmer*, we confess, about plows and pitchforks, hoes and harrows, mowers and reapers, and various other machines and implements which tend to expedite and make easy the labor of the farmer. But to help her who bears up the other end of the yoke, and without such even draft every thing goes askew, we have said but little, because, indeed, we did not know what to say. But now, Eureka! we have found it. Half of the Washing Days knocked out of the year! the women good-natured because their work is done rapidly and easily, the children well-cared for, and the husband's face beaming with smiles in consideration of snowy shirt-bosoms and dickeys, and his wife's unusual elasticity of spirit. As Sancho invoked blessings on the man who invented sleep, so do we on Mr. Wheeler, for his machine.

"Rub, scrub, rub, scrub,
Scold, scold away"—

there's nothing of this about our domicil *now;* but bless the women—we mean Mr. Wheeler—if one is a little late at breakfast on a Monday morning, he would scarcely know from appearances that such an operation had been thought of by any of the family for a month.

The cut above is a truthful illustration of this machine. The clothes are put in at each end of the tub, and the turning of the crank impels the dasher forward and backward, giving a complete fulling-mill stroke, so that the clothes are not rubbed at all. We know that the machine has the following merits, from actual experiment and observation :—

1. It saves a third of the time.

2. It saves the washer from sweltering over hot suds.

3. It wears the clothes very little.

4. It is easier, every way, to do the same work with this machine than to rub them with the hands.

We recommend it, heartily, to every family who has washing to be done. The price we believe is $10.

For the New England Farmer.

SMALL POTATOES AGAIN.

Mr. Editor:—I have just been hoeing some small potatoes, that have come up well and look just as large as large potatoes do when they sprout; and, having got enough of that exercise, I will attend to the next field I meet—last week's *Farmer*—not all small potatoes, by the way.

Your correspondent, Mr. Poor, has differed widely, both from my opinion and yours. As his article contains, as I think, several fallacies, common to reasoning on agriculture, I will notice it at length. And the first is, "that there is but one right way" to do a thing in farming. This is a prolific source of trouble, but has no foundation in fact. Nature is by no means as niggardly of her means as men would make her. The provision for reproduction in the potato shows she can do the thing in two ways at least—by the balls and by the tubers. We should like to see the proof of that statement of "but one right way." All nature is against it.

In the second place, I cannot answer for the season when my father raised his small potatoes; (I did not come up that year;) but it was such that his neighbors raised good crops, and his land was the same kind usually planted. The "large seed" was not given as the *cause* of the small result, but to show that large potatoes did not of necessity secure large potatoes, nor small ones small. Why they grew small, I am as ignorant as need be, and, if your correspondent can show a reason, I will give him all the data in my power. *Theoretical speculations will not invalidate a fact;* and this involves another principle of great importance to the farmer,—that he *depends on facts wholly*, and on SPECULATION *none at all*. The diversity of opinion arises from imperfect generalizations and crude speculations *not a little*.

In the third place, one large potato did not furnish my neighbor with half the vines my small ones did me. If 20 or 30 stalks overstock a hill, 40 or 50 would still more, and I had the most vines and potatoes also. I cannot say how many shoots either of us had, but too many, I presume.

In the fourth place, the potato is indigenous to the mountainous regions about the head of the Amazon, as well as elsewhere. There the native growth exists wild, to which I refer, and there no large tubers are found. Hence, large tubers are of artificial growth, as well as large cabbage heads. But I named this not as a reason, but an illustration.

I have not attempted to prove small potatoes better than large ones, but to ascertain, *by facts*, if they are as good. And this is a question of fact. Our planting plump grain has no bearing on this question, for the good reason that grain is not potatoes, and their botanical character and physiological structure and functions are so different, that no conclusion of this sort drawn from one will apply to the other. I cannot here enter on the discussion of this subject. The other illustrations, *so far as applicable* to potatoes, are just as much in need of a decision as the potatoes. It is but borrowing one hypothesis to prove another. My allusion to the natural growth, &c., was simply to show that the diseases of the potato were not attributable to planting small potatoes. Every botanist is aware of the tendency of all our cultivated plants to resort to their original type, and the fact of their doing so, shows the artificial character of large growths, for the most part. These that have thus reverted, are no less perfect in respect to vitality and the specific character of the plant. I am not aware that the chemical composition of the small potato is different from the large one. Nor is there any evidence that its vitality is proved. It is certainly a tendency to revert to its original type, and does not imply any deficiency in the power of the tuber to reproduce. The question is, will it as *well reproduce large potatoes?*—a question of *fact*.

The only fact to which your correspondent refers—the practice of Long Island farmers and Mercers—is indefinite, and only proves that large potatoes will produce large ones, under favorable circumstances, a fact which is not new; but the question is, will not small ones also? I last year planted some potatoes, called here the New York potatoes, of large size. I finished in a hollow by a piece of corn, and had not enough to finish. I therefore planted about a square rod with *small* peach-blows. The hollow, in all, covered about three square rods. I dug from it, by measurement, between nine and ten bushels, the two kinds yielding about equally. From the whole I sorted out less than a half bushel of small ones, and these were as plenty from the large seed as from the small. This plat was excellent land for potatoes, and my conclusion coincides very much with that of a thrifty farmer, whose opinion I asked on this point. "Large potatoes," said he, "are very good, and I don't know but small ones are just as good; but the *best thing is to have the ground in good condition.*"

S. P.

For the New England Farmer.

YOUNG APPLE TREES DYING.

Mr. Editor:—I am this spring suffering the loss of some 15 to 25 fine young apple trees, from 2 to 5 inches in diameter.

I have recently learned that like losses have been extensive, embracing ornamental, as well as different kinds of fruit trees. I wish, with the aid of yourself and your numerous readers to, account for this loss. I have made no observations beyond my own farm. Those trees which first attracted my attention were situated near a wall, and were for a long time during the winter imbedded in a snow-bank some 4 or 5 feet deep, which lay upon unfrozen ground. I noticed no indications of decline until the leaves were partially expanded and presented an unhealthy look. On examination, the trunk was found to be destitute of any lively bark from the limbs to within 3 to six inches of the ground.

These trees were immediately engrafted very near the ground and are now doing well. A week later others were discovered farther advanced in foliage but destitute of lively bark upon the trunks. As late as the 11th inst., others still were discovered loaded with the richest foliage and well formed fruit, with no indications of decline, and yet the trunk of the trees was covered only with a dark moist dead bark.

I have desisted from engrafting these last, for the purpose of observing their further progress in decline.

My theory at first was, that the heavy body of snow upon unfrozen ground, had occasioned a slight movement in the sap in the trunk of the tree, and the intense cold following in quick succession, the heavy thaws had frozen the trunk as low down as the snow had been removed, while the circulation had not extended into the limbs at all. This theory was somewhat satisfactory to me, until as late as the 11th inst., I find other trees with dried trunks and yet loaded with the richest foliage and well formed fruit. I am now confounded, and await the discussion of the subject in your columns. N. F. Emerson.

Chester, N. H., June 16, 1855.

Remarks.—We have seen some of the trees spoken of by our correspondent, and others, in different localities, affected in the same manner. Can some of our intelligent tree-growers give the cause and a remedy?

For the New England Farmer.

HAWAIIAN AGRICULTURE.

Makawao-Maui, Hawaiian Islands, March 8th, 1855.

Editors New England Farmer:—*Gentlemen*,—In my last communication, June, 1854, I told you of the wheat crop which we were then harvesting, and of one of Hussey's reapers which was marching through our fields. Before I shall have occasion to speak of another crop of this precious grain, let me tell you of the value of the crop of 1854, and of the disposition which we made of it.

I may say, in a word, much of the crop of 1854 was injured by the rains. A portion of it was utterly ruined, rotted in the field, and scarcely a bushel of what was saved was as good as usual. When the flour made of the first lot of wheat, which was sent down to the mill at Honolulu, was made into bread, there was a great outcry. The bread was neither white nor sweet. Serious damage to the credit of Hawaiian flour seemed for a time to be unavoidable. And though the character of some lots of wheat, which were ground afterwards, was such as to retrieve, in part, the reputation of Makawao as a wheat country, still suspicion and doubt rest on many minds as to the success of the enterprise. Much of the wheat which we designed for seed is injured, some by heating, and all by the weevil, so that only about six-tenths of it will come. You mistook me as saying that early sowing was a preventive of the weevil. Dry weather during harvest and till threshed, with a small quantity of good air-slacked lime, will do much to prevent the ravages of this insect; at least, it did so last year. But this year, rains during harvest, and more or less while threshing, caused so great dampness of the grain, that the whole body became damp, and this heat and dampness generated the weevil in great numbers. How many of them have fallen on my desk and on this sheet since I commenced writing, it would be impossible to tell. I am not certain that the lime did not do more hurt than good this year, on account of the dampness of the grain. At any rate, I am not exactly satisfied with the experiment of last year.

The steam flouring mill—said to be an excellent one—commenced operation early in June. The price paid for wheat at first was 2½ cents per pound. This, however, was not paid after a few weeks. The company soon threw off one-fourth of a cent, then three-fourths of a cent more, and some has been sold as low as one cent. And even at this low rate the company will, doubtless, sink money this year. One of the shareholders told me that they should probably sink some six thousand dollars. This estimate, however, may be rather high.

You can easily see that there is some ground of discouragement in relation to Hawaiian flour. Wheat can easily be raised, and wheat of an excellent quality. The experiment has been fairly tried. Even last year, the wheat was much of it of large growth and good kernel. Some of it yielded about forty bushels to the acre. But harvesting and curing the crop will be the difficulty. We have no barns nor granaries; of course we have to stack our wheat. In dry seasons, this method answers very well. In good season, say September, we can thresh the grain, (all that we can spare,) and send it to Honolulu, though at some risk, from the sea-leaky vessel or wet passage. What we need for seed we can leave in the stack till sowing time, and if the wheat was thoroughly dried when stacked, there will not be many weevils in the seed. This year, now that the season for sowing has returned, we find the seed poor and full of weevils. We could not keep what we threshed in early autumn, though more than usual lime was thrown into it, and it was put into a large and dry room. The weevil has become such a nuisance, that I cannot consent again to store it in the house. We need such a granary as I see described in the *Country Gentleman*, of December 14; but we have not the means of building such an one at Makawao—at least, *I have not*. Fences and buildings of some kind for wheat, corn, beans, &c., are indispensable to success in farming, here or elsewhere. We lack stone at Makawao for building wall, and the wire fence is very expensive.

We are now near the middle of March, but considerable wheat remains to be sown. Not more of this grain will be sold this year than last, but much of it will be put in in better style. The excessive rains of last year caused so rapid a growth of vegetation, and prevented the possibility of burning it, that we find it a great deal of work to prepare the ground decently for a crop. The winter rains, too, are copious, so that there is danger that we shall find the season too short for sowing all that we desire. Some of the neighbors, who sowed a good deal last year, do much less this. Others do nothing; though several foreigners and some natives, who have

done nothing hitherto, are now sowing, so that we shall have about the same number of acres as in 1854. How much of it will be secured remains to be seen, and how we shall get it ground is another question, seeing the mill is on the island of Oahu.

Had I engaged in the business of wheat raising with the sole or even chief view of making money, I should not be a *little* mortified, but greatly so, with my want of success, for I have, thus far, failed to clear any thing. My chief object, however, was to introduce the grain into the country, and persuade my people to cultivate it. In this I have succeeded, and I am more than content. I am thankful. One of my people was quite successful the last year, there being less rain on his place than in my immediate neighborhood. The same man has some fifty acres, which look exceedingly well. Had the mill for flouring been put at Wailuku, where it was designed at first to place it, so that we could obtain the grinding of our wheat without sending it to sea, I should feel quite whole, after all, on the subject of wheat. I still hope that all in good time we shall have a small flouring mill at that place, where the water privileges are favorable, or perhaps a wind-mill at Makawao, where we raise the precious grain.

You know, I suppose, that I am pastor of the church at this place, and that, of course, I have many cares and much labor devolving upon me. My appropriate work I may not neglect for any temporal consideration whatever. Did I not think that my efforts in the agricultural department had an important bearing on my ministerial labors in elevating the people from their low condition, teaching them industry and thrift, and giving them stronger motives for exertion of the right sort, I would cease at once all attention to business of this kind. I am, besides, unable to toil as formerly, having a maimed hand. The loss of my right hand thumb does not prevent my writing, though I write with pain, but it prevents my doing a thousand things which I have been accustomed to do. I cannot pick up a nail, cannot use the axe, the saw or the plane, and scarcely the hoe or the sickle. Still, I can oversee the labor of the farm as usual, and can commend the cause of agriculture to the increased attention of my people. Our Hawaiian Agricultural Society, formed some two years since, will unite with one recently formed at Wailuku, and there will be an exhibition of some sort in the course of the season. If we shall succeed, you may expect to hear from us all in good time. We on Maiu find it of little use to belong to the Royal Hawaiian Agricultural Society, which holds all its meetings and has all its exhibitions, fairs, &c., at Honolulu. Nothing of the cattle, sheep or swine, nor even of the fowl kind, can we present for competition. It is time that we had an efficient society of our own. I have never more deeply felt the dignity and importance of agricultural pursuits than I do now. Noble employment! It is *the business* which, so far as this world is concerned, makes man a co-worker with God in providing for the wants of his almost innumerable family. Would that every husbandman felt the dignity of his labor.

Yours with much respect, J. S. Green.

WOMAN.

BY WILLIAM LEGGETT.

No star in yonder sky that shines
Can light like woman's eye impart;
The earth holds not in all its mines
A germ so rich as woman's heart;
Her voice is like the music sweet
Poured out from airy harp alone;
Like that when storms more loudly beat,
It yields a clearer, richer tone.

And woman's love's a holy light,
That brighter, brighter burns, for aye;
Years cannot dim its radiance bright;
Nor even falsehood quench its ray;
But like the star of Bethlehem,
Of old to Israel's shepherds given,
It marshals with its steady flame
The erring soul of man to heaven.

THE TRUE VALUE OF THE MINERAL ELEMENTS OF THE SOIL.

We hear so much said by chemists and men of science, about minerals and their importance as fertilizers, that, without stopping to think, we should almost be led to believe that these were the only elements of nutrition needed by vegetables. We are told of the wonderful effects produced by the application of the various salts of ammonia, potash, soda, lime, silex, iron sulphur, &c., to the soil. We are pointed to analyses of vegetables, shewing the percentage of these elements contained in their composition, and we are almost ready to imagine that vegetables may be manufactured in the laboratory, out of the elements. Indeed, we should hardly be surprised to hear, one of these days, that Prof. Mapes had taken out a patent for manufacturing them in a wholesale way. We hope when he takes out his patent for the manufacture of corn, he will give it to us in the shape of the whole grain, and not in the shape of flour, or we shall be very apt to suspect that it contains an excess of *superphosphates*.

But to be serious, mineral elements are doubtless of indispensable necessity to the healthful and vigorous growth of plants. They will not be perfect in all their parts without a due proportion of such salts as their several constitutions require. But these elements are not all which they require. The staple food of plants, that from which they derive their chief nutriment and support, is the carbonaceous matter, which is called *humus* or *earth*, *par excellence*. This is composed essentially of decayed vegetable and animal matters. These contain more or less mineral matter which previously existed in the vegetables of which they were composed when they were in a living state. But after all the talk about minerals, the great object of the cultivator must be to obtain an abundant supply of decayed straw, leaves, wood, peat, and the excrements of animals duly mixed and combined, and apply

them in a proper state, and at the proper time to the soil, for his plants to feed upon. If in *addition* to these, he will apply such mineral elements as are adapted to the wants of the soil, or the particular plants which he cultivates, they will undoubtedly contribute to their more rapid and perfect development.

The attempt to feed vegetables on mineral manures alone, would be much like attempting to feed a man upon pepper, salt, mustard, vinegar and sugar, and omitting the pork, potatoes and meal. The seasoning is all very well, nay it is important. It assists digestion; it stimulates the various secreting organs; it promotes appetite; it renders the food more palatable. But seasoning alone will not do. There must be something to season. Such an attempt to save the pork-barrel, meal-chest, and potato-bin, would prove poor economy in the end. He will dig more mud and lay more wall on plenty of beef and potatoes and bread, than on all the condiments which the most skilful French cook can combine, or on all the spices of "Araby the blest." The application of this any one may make for himself.

For the New England Farmer.

A VARIETY OF SUBJECTS.

Mr. Editor:—I propose to offer for insertion in your very interesting and useful paper, a few brief articles on the following subjects: "Design and Usefulness of Labor; Antiquity and Dignity of Agriculture; Increased attention to Agriculture, and its connection with Chemistry; Ours, an age of Improvement; Means of Improvement; Agriculture an extensive and progressive Science; Good and bad Farming contrasted."

Without wishing to be obtrusive, or to appear learned or dogmatical, I should like to say something, in a very plain way and as concisely as possible, upon each of these topics. For my object is not to acquire reputation as a writer, or to magnify myself as a philosopher, but to do good to the common class of readers, for whose use and benefit your paper is especially intended. I wish to awaken in the minds of farmers and of farmers' sons a more general interest in the cause of agriculture, which I regard as the foundation of all other useful employments. For, though agriculture is as old as the creation, and has been the employment of the great mass of men in every age, yet so strangely has it been conducted, even down to our day, that, as a science, it is yet but in its infancy. In other words, it has not kept pace with the improvements which have been made in all other employments.

Not wishing to take up too much of your valuable room at any one time, I have thought it advisable to present what I have to say in separate articles, each article covering less than two-thirds of a column in your paper. I do not expect, in so brief a manner, to do justice to these topics, or to present them in a very new or striking light, but simply to give the results of my own reading, observation, experience and reflection. It is by comparing together different thoughts and results, that we approximate to the truth. As "one swallow does not make a summer," so the success of one experiment is not sufficient to establish a general truth. But, when the observation and experience of all confirm the self-same thing, the result is certain. What is needed upon these subjects is more light, more experience, more practical knowledge—something that can be understood and appreciated by all. When this further light and knowledge shall be attained, and spread abroad through the community, so that every farmer shall thoroughly understand the science of his own calling, *then*, and not *till* then, will the grand object for which we are laboring be accomplished.

Warwick, 1855. John Goldsmith.

Remarks.—We are under especial obligations to friend Goldsmith, not only for the excellent articles enumerated above, but also for the privilege of using them when it is convenient for ourselves. We shall give them from time to time, and are confident that the reader will find them both pleasing and instructive.

SPECIAL MANURES FOR FRUIT TREES

As a general rule, some kind of compost made of common yard or stable manure, is best and most reliable for fruit trees. Successive layers of turf, or of muck and turf, in connexion with one-third or one-half manure, and a small quantity of ashes, worked together after lying a few weeks, will be found admirable in nearly all cases, if used in proper quantities. But in rare instances, a special application proves of eminent advantage. An example of this sort occurs in the statement of the Shakers at Harvard, Mass., published in the Patent Office Report. The soil is clayey, but the trees grew poorly. They applied all the special manures suggested by experiments or reading, until observing the effect of urine on an unthrifty apple tree, they were induced to try it on pear trees that remained unthrifty in spite of iron, bone-black, ashes, lime, and high manuring. "The result was, the trees shot up a growth as luxuriant as weeds in a hot-bed. Those which had rarely made an inch of growth in a season, grew scions from 18 inches to three feet even, in the summer following the operation." The mode was to apply about two quarts, sprinkled around each tree at a time; to stir the surface of the earth a little, so that it may be well mixed, and prevent the formation of a crust. A cloudy day is recommended. The operation is repeated a month afterwards; and again on those trees not showing a satisfactory result. Caution is needed not to over-stimulate—the quantity must of course vary with the size of the trees, but we are not definitely informed in this respect. The full effect is not confined to the first year. What particular ingredient, or rather what particular form of at, contained in this application, not to be found in ordinary manure, produced so extraordinary results, we leave for theorists to determine, if they can do it with certainty.—*Country Gentleman.*

For the New England Farmer.

EXPERIMENTS WITH POTATOES.

Mr. Editor :—Having read from time to time in your paper others' experience in potato raising, I will send you a short chapter in mine, which you may publish, if you think it worth a place in your columns.

In the month of May, 1853, I broke up about half of an acre of moist land, soil a dark loam, with a light marly subsoil, plowed from ten to twelve inches deep, so as to turn up from two to three inches of the subsoil; manured the same by putting a small shovel full of compost in the hill. Hoed them the latter part of June, and dug them the first of October, getting but a small crop, it taking from 60 to 80 hills to make a bushel.

In September, 1853, I broke up a strip on each side of the above, in the same manner as in the spring, making a little short of one and three-fourths acres in the whole; let the whole remain until May, 1854, when I gave the whole piece a thorough harrowing. Then carted and put on and spread 44 cart loads of green stable manure, each load containing from 25 to 30 bushels. Cross plowed the piece, and turned the manure in from eight to ten inches deep. Furrowed the same north and south, as near three feet apart as I could without measuring. I then commenced on the west side of the piece, and put a small shovel full of compost (made of one-half meadow mud and the other half stable manure,) in a hill, and put the hills two feet apart. I then commenced next to the meadow, and planted four rows without any particular order as to the amount of seed. The next two rows, I put two good sized potatoes in a hill, the smallest being as large as a hen's egg. The next two rows, I put two half potatoes in a hill. I then manured about an acre with manure from the hog-yard, and planted it with corn. I then commenced on the other side of the corn to plant potatoes, the land lying a little higher, and not quite as good soil. I then manured two rows with leaves from the forest that had lain in the calf-pen until they had become well-wetted with urine, and thrown out from time to time into a heap; put as many into a hill as I could make lay on a common iron shovel. The two next rows, I put from a pint to a quart of wood ashes in the hill. The remainder of the piece I manured with compost, as on the other side. I ran a small harrow between the rows three times during the month of June, and hoed the corn three times and the potatoes twice, without making much of a hill; the rows were not far from seventeen rods long, north and south, there being no rows the other way.

I dug my potatoes the last of September, and from twenty hills from the two rows with two seed potatoes in a hill, I obtained 69 lbs. 10 oz. of good sized potatoes. From twenty hills from the two with one in a hill, 64 lbs. 6 oz. From twenty hills where I cut the seed and put two halves in a hill, 64 lbs. 2 oz. From the acre of corn I had a very large growth of fodder, and obtained 80 bushels of ears of good sound corn, a part of the piece being injured by the drought, so that it did not fill well, not having half as much corn in quantity, and not so good a quality, as on the other part. From twenty hills of the two rows manured with leaves from the calf-pen, I had 60 lbs. 6 oz. From twenty hills manured with ashes, 43 lbs. 14 oz., and from twenty hills from the two rows adjoining, manured with compost, I obtained 50 lbs. 4 oz.; but it must be remembered that the soil was not so good where these last grew as on the other side of the corn.

I cut the top stalks from the corn not injured by dry weather, while the other part I cut up and piked about the same time, which was not far from the 20th of September. Upon the whole I think I obtained a good crop, for our hill lands, and I will send you my account of labor, &c., with the amount of crop, which you can publish, if desirable.

	Dr.
To 2 days plowing in the fall, with 2 boys, oxen and horse.	$6,50
1 day harrowing in spring, with boy and oxen	1,50
44 loads of green manure to spread	44,00
3 days labor with oxen to cart manure	6,00
2 days, with boy and oxen, to cross-plow	4,00
1 day labor to spread manure	1,50
14 loads compost manure	10,00
1 days labor with oxen to lay out manure in hills	4,50
16 loads hog manure	16,00
4 days with boy planting	5,50
3 loads other manure for squashes, cabbages, &c	3,00
1½ days labor with boy and horse to harrow among crops	2,25
10 days labor hoeing potatoes twice, corn three times	12,50
8½ bushels of potatoes planted	4,25
Corn and beans to plant	0,50
1 day labor cutting and binding top stalks	1,25
¾ day labor cutting and piking corn	1,00
1 day labor cutting corn and drawing to barn with oxen	2,00
Labor husking corn	3,00
8 days labor digging potatoes	8,00
½ day labor digging ruta bagas	0,50
½ day with oxen to draw pumpkins	1,00
¼ day with oxen to draw cabbages	0,33
1 day labor to pull and thresh beans	1,25
Cutting and carrying corn fodder to cows	1,00
Total expenses	141,08

	Cr.
By 40 bushels of sound corn	$40,00
5 bushels of soft corn	2,00
1 ton top stalks	10,00
1 ton fodder cut up at roots	8,00
1 ton husks	5,00
4 loads pumpkins	4,00
1½ bushels white beans	2,25
1 wagon load of cabbages	2,00
25 bushels ruta bagas	4,17
10 square rods corn fodder given green to cows	3,00
135 bushels potatoes	67,50
Small lot melons and squashes	1,25
Total value of crops	$149,17
Deduct expenses	141,10
Leaving in my favor	$8,07

to pay for use of land, which is left in good order for spring grain, which I intend to sow with wheat and barley, (without manure,) as soon as the season will permit. I will, if spared, send you the result.

Yours truly, Henry Barber.

Warwick, Mass., 1855.

Facts about Milk.—Cream cannot rise through a great depth of milk. If, therefore, milk is desired to retain its cream for a time, it should be put into a deep narrow dish; and if it be desired to free it most completely of cream, it should be poured into a broad, flat dish, not much exceeding one inch in depth. The evolution of cream is facilitated by a rise, and retarded by a depression of temperature. At the usual temperature of the dairy, 50 degrees Fahrenheit, all the cream will probably rise in thirty-six hours; but at 70 degrees it will perhaps rise in half that time; and when the milk is kept near the freezing point, the cream will rise very slowly, because it be-

comes solidified. In wet and cold weather the milk is less rich than in dry and warm, and on this account more cheese is obtained in cold than in warm, though not in thundery weather. The season has its effects. The milk, in spring, is supposed to be the best for drinking, hence it would be best for calves; in summer it is best suited for cheese; and in autumn the butter keeping is better than that of summer—the cows less frequently milked, give richer milk and consequently more butter. The morning's milk is richer than the evening's. The last drawn milk of each milking, at all times and seasons, is richer than the first drawn, which is the poorest.

THE FARM ELEPHANT!

In reply to our inquiries, some time since, as to the amount of provent required per day by Mr. BARNUM's *Farm Elephant*, he has sent us the following interesting note, with a postscript respecting soaking potatoes in *copperas* water.

THE FARM ELEPHANT—COPPER BOTTOM POTATOES.

Bridgeport, Ct., July 7, 1855.

EDITOR OF NEW ENGLAND FARMER:—*Sir*,—In answer to your inquiry in regard to the diet and weight of my working elephant, I would state that he eats on an average one bushel of oats and one hundred pounds of hay per day, Sundays and all! His weight is 4700 pounds. He will accomplish any kind of work set before him, and uses ten times better judgment than three-fourths of the "help" which I am obliged to employ on my farm. Above all things, he is not an *eye*-servant. Once set him at work piling wood, picking up stones, or any thing else, and you can leave him without fear of his playing "old soldier" in your absence. Another capital negative quality is, that he dont pick up his duds and start for home exactly at six o'clock in the afternoon, as many other farmers' "assistants" do. He is willing to labor till sundown, and even later, if work is pressing. On the whole, he is a very honorable, industrious, intelligent and well-behaved farmer; nevertheless, I cannot conscientiously recommend elephants as the *cheapest* workies on a farm. They cannot work in cold weather, and of course would eat themselves up, trunk and all, in a single winter.

Truly yours, P. T. BARNUM.

P. S.—Do let me improve this opportunity to caution my brother farmers against "believing all they read in the papers." About planting time I read in a newspaper that a sure preventive of the potato rot was to soak the seed potatoes in water with an ounce of sulphate of copper to the gallon. I tried it, and it *did* prevent mine from rotting and from *chitting!* After they had been two weeks in the ground my man dug them up, and found them sound inside, but as dry and hard as a bone on the outside, with not the slightest prospect of their ever exhibiting any natural signs of life. They were perfectly "copper fastened!" Luckily I only experimented on a small portion of my potatoes, and discovered the joke in time to remedy it by planting potatoes in their natural state. P. T. B.

THE WORKING OF COWS.

Why should not *cows* work for their living, as well as other females—animal and human? We were visiting a friend the other day, who owns a small farm, and manages it well; and, in the course of our observations about his premises, he called our attention to a large calf, the largest one we ever saw at the early age of two days old. It was a beauty. We wanted also to see the cow that produced such fruit. He showed her to us. She was a good conditioned cow, but only of the ordinary size. He then remarked that the cow belonged to a yoke of cows, which, with two other cows, yoked, had done all his farm work for several years past,—hauling wood, drawing stone, plowing green-sward, harrowing the ground, hauling manure, &c., &c. They worked as kindly and *more* actively than oxen, and appeared in as good plight, and produced as good calves, and gave as much milk as any *lazy* cows, that did not work. He is quite sure that a small farmer, who has no *very* heavy work to do—such as logging, &c., had much better keep four cows, and teach them to work, than to keep two cows only and one yoke of oxen. The expense is less; he will get more milk, and will be able to perform as much work. Of course, if he works his cows, he will give them extra keeping; and this will enable them to give as much milk whilst they work as less well-fed and more idle cows will give. The females of our own species work, and some of them work as hard as men; the females, too, of the horse genus, equal their mates of the other sex in the service of man; why, pray, should not cows also be made to perform such operations as may be consistent with their health and usefulness in other respects?—*Drew's Rural Intelligencer*.

For the New England Farmer.

HOW TO KILL TICKS.

MR. EDITOR:—In the June No. of the *Farmer*, a subscriber wishes to know the best way to kill ticks on sheep, and thinking the remedy used here preferable to the one you recommend, I give it.

Take tobacco, about 10 pounds to 100 sheep, and boil in water until the strength is extracted, reduce the liquor if too strong, (about 8 pailsfull of liquor to 10 pounds of tobacco is the right proportion,) and dip the lambs into it all over, taking them out quickly squeezing out the liquor from the wool. After the lambs have all been thus treated, put the old sheep into a close yard in as small a space as can be and throw the remaining liquor over them with a pail. The application should be made in a dry day and immediately after shearing. One application will kill every tick without any injury to the sheep, Most of our sheep-growers consider tobacco beneficial when sheep are not infested with ticks.

making them healthy and less liable to disease. I treat my flock yearly, although I seldom see a tick.

I send you a sample of wool taken at random from a fleece, taken off June 1st, from a two year old buck, with the weight of sheep and fleece. Sheep weighed before shearing, 117½ lbs., fleece; 14 1-16 lbs. of *well washed wool*, of one years growth *only*; breed, from "Native American" Merino descended from stock imported from Spain, many years since. If any of your readers can beat this, I should like to hear from them.

J. B. Proctor.

Rutland, Vt., June 11, 1855.

Remarks.—The sample of wool before us is very beautiful, and shows, with the above description, to what a degree of perfection our sheep-growers have brought their fleeces as well as mutton. We should feel obliged to Mr. Proctor for a dozen samples of wool taken from the various breeds of sheep in his neighborhood, with a brief description of each sample.

For the New England Farmer.

LIGHT FROM THE GRANITE STATE.

Mr. Editor:—After living in the Old Bay State the most of my days, and getting my living by farming, I find myself here in the Granite State.

Looking out over the country at the close of a dry season, when vegetation suffered so much, I find the agriculture of this portion of the State needs a reform. The farmers around Boston are well posted up in improved implements, the new methods of cultivation, and in the progress of rotation and change of crops. By the middle of June you can determine almost to a certainty what the hay crop will be. If it is destined to be light, then corn and millet make up the deficiency, and the root crops will insure a surplus. Not so here; what hay can be cut and stored, must carry the stock through; sometimes there is plenty and to spare, at other times, the stock suffers for the want of fodder that might be secured with a little forethought and labor. An acre or two of green corn used for soiling would be a great benefit. Then there is millet, which is strictly a summer grain, thought to be as valuable as any other fodder for winter use. By the way, will not some of your correspondents relate their experience in millet raising?

Now a word of advice to my neighbors and townsmen here in Meredith. Let every farmer and mechanic in this town give his name and money to the postmaster to order and pay for the *New England Farmer* for one year, and study the improved husbandry of the nineteenth century; then practice the same, and I will venture the assertion that they will find seventy-five per cent. increase of profits.

The soil of this town is good, and though some parts of it are hard to work, yet this can be met and overcome, by study, toil and perseverance. The manure heap can be increased at least four-fold, the land can be plowed with half the team, the expense of cultivating crops can be much reduced, and instead of bringing so much bread-stuff into the town, there may be at least a sufficiency raised for home consumption. There needs a change in many particulars, but a few of which can now be noticed. There is a mistake somewhere in respect to there being so few laborers on the land. Is it because farming is not honorable or profitable? Or is the labor more severe than to drive a truck, or express, or omnibus, in Boston? Is it thought more honorable to measure tape behind the counter, than to preside at a weekly meeting of a farmers' association, or to swing the scythe in a summer's day? Let agriculture take its proper place with the professions of the day, and it will not be thought degrading to be seen in the field with spade in hand.

Ask the retired merchant what he thinks, while busy on his model farm, surrounded with everything to charm his eye, the lowing herds, the waving grain, the well-filled purse. Ask the man of small meads and few acres, with health and a smiling family, who makes the two ends of the year meet; ask him if he would exchange his happy, peaceful fireside, the lovely village church, and the district school, for the turbulent waters of a trading life in the crowded city, where boys are brought up amidst crime and dishonesty, which, without a mighty moral effort, will certainly destroy them.

Again, the farming community ought to be a reading and writing community. There should be books and papers of an agricultural character on every farmer's table and a day-book beside them to note down every little incident worthy to be remembered. These little scraps can be gathered up at any time, sufficient to note down a column to spread before the readers of an agricultural paper. These ideas and experiences can be matured and practised by others, and we be mutual helps, while we enjoy the luxuries of life in all their purity, and find that it is good to give as well as to receive.

These thoughts suggest themselves to me while here as a resident. Stranger.

Meredith Centre, N. H., 1855.

OFFICERS OF SOCIETIES.

Franklin County Agricultural Society.

H. W. Cushman, Bernardston, President.
Edward F. Raymond, Secretary.

Housatonic Agricultural Society.

Henry Smith, of Lee, President.
E. P. Woodworth, Gt. Barrington, Treasurer.
J. Sedgwick, Great Barrington, Secretary.

Rutland County Agricultural Society.

Henry W. Lester, Rutland, President.
John L. Marsh, Clarendon, } Vice
Alanson Allen, Fairhaven, } Presidents.
Daniel Kimball, Rutland, Secretary.
Zenin Howe, Castleton, Treasurer.

Cure for Garget.—*Joseph Merriam*, of Ohio, states, in the *Ohio Farmer*, that raw linseed oil, rubbed over the cow's bag, will cure the garget. He says it is a certain remedy.

MOWING EXHIBITION.

There was a trial of mowing machines, on Tuesday, on the farm of Mr. Moses Wetherbee, in Dedham, under the superintendence of a committee of the Norfolk County Agricultural Society. The trial was in competition for the premium of $600 offered by the State Society. We find a report of the proceedings in the *Telegraph*, from which we condense the following account:

"The field was very level generally, and free from any obstructions whatever in the nature of stones or stumps, though the surface was not entirely even. The grass to be cut was very light, but very even, being almost wholly a fine red-top of a wiry, hard kind, with a fine bottom.

"Three machines were on the ground, of Ketchum's patent, two of them being heavy for two horses, cutting a swath about 4 feet 8 inches wide, and one for a single horse. These machines operate with a vibratory motion, the cutting apparatus being fixed upon a rod which is moved swiftly from right to left.

"There are also three machines on the ground of Manny's patent, made by Adriance & Co., of Worcester. One of these also was for a single horse. The larger machines weighed about 500 and 600 pounds respectively. They also cut with a vibratory motion in the same manner as those of Ketchum's; but they have what Ketchum's do not, a small wheel on the right hand side of the machine, which helps to support it and causes it to move with less friction, and consequently greater ease for the team. They also have a reel which is made to revolve with a downward and backward motion as the machine moves forward, thus pressing the grass more firmly downward toward the knives.

Mr. Fisk Russell, of South Boston, also introduced three machines of similar sizes, but cutting on different principles, the knives being so arranged that each blade turns upon a pivot, as the rod to which they are attached moves backward and forward, and thus the edges of each blade cut with a drawing motion. The larger machines of Ketchum and Manny cut four feet and eight inches in width.

"There was also one of R. L. Allen's machines, of New York, of a different kind from either of the others in some respects, though the cutting blades move like those of Ketchum and Manny.

"The amount of land assigned to each team was half an acre. Six two-horse teams entered on the first trial at fifteen minutes after eleven. The work was completed in from twenty-two to twenty-five minutes, and was well done by all, though there seemed at this trial to be a general impression in favor of Manny's machine, on account of the greater apparent ease with which the work was done.

"The second mode of trial was by allowing each competitor to cut a single swath through the field and back again, and then examining the ground after the hay was removed by a horse-rake. In this trial, the machine of Manny showed a closer cut swath, and evidently was considered by the spectators generally, as the best machine.

"The next test was that of the machines drawn by a single horse, but no new light was thrown upon the qualities of the machines by this trial, except that it appeared that Manny's machine would admit of cutting either a full swath or only a partial one without clogging, while others did not seem to admit of that variation.

"One or two other trials, slightly varying from the last, were then had, and at the close the general opinion, as expressed by the witnesses, was rather in favor of Manny's machines, on the ground that, while they do the work quite as well, in every respect, as any other machines, they seem to be more easily managed and to require less power."

For the New England Farmer.

HARD TIMES AND THE PRICE OF LABOR.

Mr. Editor:—In speaking of "hard times," in a previous number, you say, "it is not the merchant who fails, or the manufacturer who stops his machinery, that suffers from hunger, cold or nakedness. But there *is* a class who have, until recently, received liberal compensation, who rise in the morning not knowing when or how they shall find food for the day." I would inquire of this class if the fault is not their own? If they have received liberal pay, (as it is known that workmen have received, in many cases, double pay to what was paid for the same labor ten years ago,) if they should not have been able, through a long period of prosperity, to have laid up enough to carry them through a "hard time" of six or eight months without suffering? It seems to me that, by using some economy, they should have been able to do so. The farmer has paid to the foreigner almost double for labor the past year, that they formerly paid to good men from New Hampshire and Vermont. I think the increased wages paid by farmers is unreasonable. The mechanic had, as a reason for the increase of wages, the high cost of provisions, and by increase of pay, was enabled to save more than formerly, when provisions were not so high. But the laborers on a farm have no board to pay or provisions to buy, as this item comes out of the employer; so that the farmer has been obliged to pay extra *wages*, and the extra expense of board, which has made the wages paid by the farmer amount to about $34 per month, or $20 per month with board, while the laborers in manufacturing establishments have received but $26 per month, or $1 per day without board.

I think the wages paid by farmers the last year too high, as the farmer cannot afford to pay more than manufacturing companies. Neither is it worth more to work on a farm than it is to work on wharves or for manufacturing companies, without the certainty of more than a week's work at a time; $14 or $15 and board, is as much as the laborer can command at any other work, and the farmer, who wishes to make as much as the laborer, should not pay more than this sum.

E. G. L.

Lexington, June 23, 1855.

Remarks.—There are, no doubt, hundreds of cases of suffering where dissipation or imprudence have been the cause, and other hundreds where honest toil and rigid economy have not received their due reward. Let each examine and judge for himself, and give liberally from his abundance; or, what is better, supply employment and allow each to earn his own bread. But let none suffer.

Fig Trees in the Southern States.—The *National Intelligencer* says that choice varieties of

the fig have been imported from the south of France, under the auspices of the agricultural department of the patent office. They are intended for distribution in our southern and southwestern States, where it is known that they will grow and thrive.

PATENT STUMP PULLER.

Among the visits made by us during the present month to the homes of the farmers in various parts of this State, and New Hampshire, was one to the town of Orange, Mass., to witness the operations of the eighth wonder of the world, the *Patent Stump Puller*, owned and operated by Mr. W. W. Willis, of that town. Notice of the trial had been given, so that persons assembled from the adjoining towns, and a few had come from remote distances.

At ten o'clock the hook of a stout chain was placed under the root of a moderately-sized stump, and it was turned out with as much apparent ease as though it had been a mere log with no attachments to the ground. Other stumps of still larger size, and more extensive roots, were then taken out, and all with certainty, and without the slightest confusion, and the time occupied in removing each one after the chain was applied, not exceeding ten minutes!

At length, the visitors having multiplied to quite a crowd, a larger chain was attached, and an enormous stump, the growth, perhaps, of centuries, was selected. With a small, half-circular spade, room was made under one of the roots and a stout hook attached; the chain passing from the hook up over the end of the shears. The whole surface of the ground about the stump was covered with the stumps of a later growth of young pines, whose roots penetrated the soil, and mingled with those of their ancient progenitor. The stump itself was between two or three feet in diameter, and sound, as were its roots.

A pair of stout oxen were then hitched to the lever, and driven forward. When they had advanced some four rods, the chain was taken up, and they were turned back without any unhitching, the roots in the meantime cracking and making a noise like a pistol exploded under water. The ground gradually rose about the stump, and in five minutes its gnarly roots which had securely laid there for ages were brought to the light! At the expiration of *ten minutes* the old hero was fairly turned over, and the roots on the upper side pointing to the heavens! Upon actual measurement, we found the roots extending something more than 16 feet from each side of the stump.

A gentleman from Valparaiso, who accompanied us, and who is entrusted by the Chilian government with funds to purchase agricultural implements, after witnessing the exhibition, at once ordered three of the machines to be sent to his country.

The experiment was one of the most astonishing exhibitions of mechanical power that we have ever witnessed. The machine is exceedingly simple, and not liable to get out of repair.

A very pleasant and appropriate address was made to the multitude at the close of the exhibition by —— Field, Esq., of Athol. All present seemed pleased and instructed by the occasion.

Below we give a statement of the power of the machine, furnished by Mr. Willis.

Orange, June 7, 1855.

The power of the machine varies according to dimensions. Suppose a machine to have a lever 18 feet long, the anchor loop or fulcrum to be 14 feet from the end upon which the power is applied, the first purchase loop to be 6 inches from the fulcrum; this will give you 28 times the amount of power applied at the end of the lever. Suppose your team to draw 2 tons, you have an actual purchase on the stump of twice 28, or 56 tons, and more in the same proportion as you extend the lever.

Suppose, in combination with the lever, you rise shears 12 feet high, and the foot of the shears placed 2 feet from the stump; in this case, you have an amount of power 168 times greater than that applied at the end of the lever. Suppose your team to draw 2 tons, you have an actual purchase on the stump of 336 tons! Sufficient to hurl out well nigh any monster!

When the power of the shears has become exhausted, if you apply the chain and pulleys, you double the power of the lever, which gives 56 times the amount of power applied at the end of the lever. That is, suppose 2 tons purchase by the team, you obtain 112 tons; this is sufficient when the stump is once moved from its bed by the greater power, to perfect the work.

The shears should be placed near to the stump to get the greatest power, and they exert the greatest, when, rising, they reach exactly the perpendicular position. A large portion of all work may be done without their aid.

A strong horse will answer most purposes, though oxen are preferable. One man can work this machine slowly, but it requires two or three to work it rapidly. A little patience and practice will enable almost any one to work it in a short time.

Yours very respectfully,

Wm. W. Willis.

Locusts.—It is said that in some parts of Illinois, particularly in the vicinity of Alton, the locusts, which have been quite numerous, are dying in great numbers. The ground beneath the forest trees is covered with their carcasses, and the hogs of the farmers are getting quite corpulent from the unwonted good living which is thus provided for them. The insect appears to have fulfilled its mission, its body has become large and hollow, and its strength exhausted, and in flying from one place to another, it at last tumbles to the ground, falls upon its back, and that is the last of Mr. Locust.

CELLAR FLOORS.

The cheapest, best and most durable cellar floor, which is also impervious to rats, may be made in the following manner: Supposing the cellar wall already laid, with a sufficient drain to the cellar; then dig a trench all around the wall on the inner side, a foot wide and deep, connecting with the cellar drain. In the centre of this trench make a drain by standing two stones, bracing against each other, at an angle of about 45 degrees. Then fill up the trench with small stones, to within two or three inches of the top; cover these stones with a layer of pine shavings, and then with the earth thrown out of the trench, levelling off the same with the floor of the cellar. If the ground of the cellar should be gravel, nothing further will be required; but if clay, make it perfectly smooth, and strew over it a coating of clean gravel; one load of thirty bushels will be ample for a cellar of twelve hundred square feet. The cost of such a floor, estimating the gravel at a dollar, will not exceed eight dollars; the cellar will be rat proof, and the floor smooth-dry and hard. This is theory verified by experience. AGRICULTOR.

Hancock County, June 4.

P. S. I have been planting about a quarter of an acre with alternate rows of potatoes and sweet corn, 2½ feet apart, distance between hills 3½ feet, with a hill of peas between each hill of corn and potatoes. The potatoes were started on a bed of horse manure, and when from 4 to 6 inches high, were set out in the hills, receiving at the time what was equivalent to a heavy hoeing on the 26th ult. They will be ready for market by the middle of next month, and the rows occupied by them will be set out with Early York Cabbages and Ruta Baga Turnips. The peas between the corn will be off about the same time, leaving the corn standing at 5 feet distance one way and 3½ the other. The corn is intended for table use, and when the ears are gathered, will be cut up and used for green fodder. The result shall be communicated *if* favorable, which is not doubted.

This is economy, and of the right kind—practical economy. By a little calculation of this sort, farmers and gardeners might make old mother earth yield double for the support of her children which she now does.—*Rural Intelligencer.*

MEANNESS DOES NOT PAY.

There is no greater mistake that a business man makes than to be mean in his business. Always taking the half cent for the dollars he has made and is making. Such a policy is very much like the farmer's, who sows three pecks of seed when he ought to have sown five, and as a recompense for the leanness of his soul, only gets ten when he ought to have got fifteen bushels of grain. Everybody has heard of the proverb of "penny wise and pound foolish." A liberal expenditure in the way of business is always sure to be a capital investment. There are people in the world who are short-sighted enough to believe that their interest can be best promoted by grasping and clinging to all they can get, and never letting a cent slip through their fingers. As a general thing, it will be found, other things being equal, that he who is the most liberal is most successful in business. Of course we do not mean it to be inferred that a man should be prodigal in his expenditure; but that he should show to his customers, if he is a trader, or those whom he may be doing any kind of business with, that, in all his transactions, as well as social relations, he acknowledges the everlasting fact that there can be no permanent prosperity or good feeling in a community where benefits are not reciprocal.—*Hunt's Merchant's Magazine.*

HORSES AND RATS IN PARIS.

A correspondent of the *N. Y. Spirit of the Times* gives an interesting account of the manner in which the bodies of Parisian horses and rats are usually disposed of. He says:

Four hundred horses die or are killed in Paris in one week. There is a common pound, surrounded by a stone wall, covering some ten acres. According to some municipal regulations (there is an 'ordonnance' for every thing in France) all dead carcasses, except human bones, must be brought to this general receptacle. The carcass of a horse is valuable for the bone, the hide, and the hair, to say nothing of the flesh, much prized, when fresh, in certain sausage manufactories. But should you wait until the horse has actually shuffled off his hairy coil, you might miss a bargain—another of the trade precedes and purchases. Hence it is important to buy the horse, as a dead horse, before he is dead. It is a regular business in Paris. You can tell these agents for the purchase of dead horses at a glance; the dress is that of an English groom, save the vignette on the visor of the cap, representing a dead horse's head and cross-bones; a memorandum book, a pencil, a stamp, and a piece of caustic complete his accoutrements. With scrutinizing eye he travels the thoroughfares of Paris; should a horse go lame, break a leg or neck, should he show symptoms of distress—in a word, anywhere or in any way evince signs of the many ills to which horseflesh is heir, immediately is an offer made for the animal, deliverable when really dead. The bargain concluded, the 'signalement' of the horse and owner is carefully recorded, and a private mark stamped on the inside of the foreleg with the caustic; the horse goes, perhaps rejoicing, on his way for weeks, perhaps months, only to be met with and identified after death, at the public graveyard for horses. Now, except in cases of fresh specimens, as mentioned above, the first operation on a dead horse is to take off the skin; then the flesh, to get at the bones. The skinning portion is easy, and performed with a dexterity and rapidity truly astonishing.

I have seen in the enclosure spoken of, at one time, over one hundred horses skinned, or being put through that process. The next point is to divest the bones of adhesive and often putrid flesh; bones are valued in proportion as they are clear, neat, and free from other matter. To take off the flesh by hand, is a tedious and difficult operation. An ingenious Frenchman solved the difficulty. He noticed that rats were very fond of horse flesh; he advised the authorities to colonize the dead horse pound with these animals; the catacombs of Paris furnished them by thousands. It was done, and now-a-days a dead horse's carcass, put in over night, is literally

nothing but a neat and beautiful skeleton in the morning. The pecuniary saving to bone dealers from the voracity and gnawing propensities of the rat family, is, I was told, very considerable.

Our Yankee Frenchman did not, however, stop there. It was natural to suppose that rats, so well fed and provided for, would rapidly increase and multiply; hence the necessity of regulating the matter. Every three months a grand 'battue' is made upon the aforesaid colony of rats, and all caught above ground die the death of rats. The manner of doing this amused me. Horizontal and cylindrical holes are bored all around, in and at the foot of the enclosing walls—the depth and diameter being respectively the length and thickness of the rat's body. Upon the morning of the 'battue,' men armed with tin pans, kettles, drums, &c., rush in at the peep of day and 'charivari' the poor rats, who, frightened to death, poke their heads into the first opening. Of course, all those in the wall holes have tails sticking out. The rat collector, with bag over his left shoulder, now makes a tour of the premises, and the scientific and rapid manner with which the rats are seized by the tail and safely (to both rats and operator) transferred to the bag, challenges admiration. It even surpasses the 'Chiffonnier's' rag picking. Perhaps you wish to know what becomes of the rats. These, also, are sold before they are caught or killed. The privilege of gathering rats on the 'battue' days is farmed out by the authorities, and a profitable business it is. These rats, sleek and fat as they necessarily are, fetch a highly remunerative price—the fur, the skin, and the flesh, meet with ready sales.

For the New England Farmer.

"LUNAR INFLUENCES."

I noticed in the *Farmer*, for February 17, a short article headed "Lunar Influences." The signed initials are those of one whom I know, by reputation, to be a judicious and practical man; and I was very sorry to see him express himself in the language of ridicule, dashed with bitterness, as having no fellowship with the *superstitious* believers in lunar influence.

The moon may have nothing to do with the cutting and killing of brush; but, *somehow or other*, it *will kill* brush to cut them in the old of the moon in August. I speak from experience, having first discovered the fact by accident, after cutting the brush on the same land for two or three years without any effect, unless it were to make them "renew their youth like the eagles." The moon may have no influence upon vines; but, *for some reason or other*, vines planted in the old of the moon *will be more fruitful* than those planted in the new, as "J. W. P." can very easily ascertain by experiment. Plant them so that the pollen will not mix, and try it.

I remember reading the lectures of one Dr. Lardner, a very learned and scientific man, who run away with another man's wife, and laid down science to Uncle Sam's boys several years ago. He ridiculed the *superstitious traditions* of farmers and the "common people" concerning the influence of the moon on vegetation. The same Dr. Lardner ascribed the cause of the tides to the attraction of the sun and *moon*, principally of the moon, on account of her comparative nearness to the earth. The moon, then, Oh, Dr. Lardner!—or your shade, if you be dead—*does have* an influence on the *water?* So it has on certain kinds of vegetation; the sun-light has an influence; the *moon*-light has also an influence. For what, I would respectfully ask of the *savans*, was the moon made? To shine, say a fourth part of the nights of the year, and "keep dark" the balance? Can "J. W. P." sleep as well on a moonlight night as on a dark one? It is not the light in his room that causes him to be wakeful, altogether; for he could sleep facing a lighted lamp—"cat-naps" at first, perhaps, if not accustomed to the artificial light; but let the full moon beam into his face, and he will lie awake for hours reviewing the sins of his past life.

Mr. Editor, on the whole, "J. W. P." did not write that article; if he did, let me ask of him respectfully to take up an old-fashioned book, called the "Holy Bible," and turn to the 33d chapter of Deuteronomy, read the 14th verse, and let reflection have its "perfect work."

J. D. Canning.

BOOK WORMS AND DUNCES.

The difference between those who spend a lifetime in the perusal of antiquated works on agriculture, and those who never read at all, is much less than is generally supposed; and while a thorough reading of the current practical improvements of the day is highly useful, the application of an antiquarian taste in the study of agriculture is worse than useless. What can it avail to a modern farmer, to know what were the processes of a thousand years ago? What consequence can it be to him to know what crops could be raised by the use of a wooden plow, or what was the opinion of Jethro Tull on matters which have been materially improved and better understood since his time? Many of our agricultural works are half filled with the history of agriculture, with scarcely a pertinent word in relation to the minutia of present processes. They remind us of a work which has enjoyed some popularity, entitled "Hydraulics," from which no artizan can learn how to build a pump. It is merely a revamping of Vitruveus and other writers, describing the modes of raising water by the Ancients. An Examiner in the Patent Office might study the history of agricultural tools with profit, for it would enable him to know what was strictly new, but a farmer should study to know the best and most recent improvements of the day. He need not fear that any tools preceding those now in extended use, are superior, for had they been so, they would have remained in use. No set of artizans are so jealous of their old tools as farmers. Any new invention must be clearly proved to be superior to those which preceded it, before it can find its way into the tool house of most farmers. The continued repetition and recital of agricultural processes of the ancients, although the fashion of the day, is like the refusal of our colleges to grant their honors to those who can substitute a knowledge of two of the modern languages in place of one of the dead ones. Progression is the order of the day, as well as the first law of nature, and farmers, beyond all others, should be the first to remember and obey this law.—*Working Farmer.*

DOCKING HORSES.

We are glad to see that the abominable practice of docking and nicking horses is going out of fashion. It prevails in no country in the world besides England and the United States; we got it from the mother country, and the sooner we leave it off the better. It is wonderful how any body but an ignorant, narrow-minded blockhead of a jockey should ever have thought of it—being as offensive to good taste as it is a violation of every human feeling. Has nature done her work in such a bungling manner, in forming that paragon of animals, the horse, that he requires to have a large piece of bone chopped off with an axe to reduce him to symmetry? or that beauty and grace can be obtained only by cutting a pair of his large muscles.

"The docking and nicking of horses," says an intelligent writer on Farriery, "is a cruel practice, and ought to be abandoned by the whole race of mankind. Every human being, possessed of a feeling heart and magnanimous mind, must confess that both the docking and nicking of horses is cruel; but that creature, called man, attempts thus to mend the works of his Creator, in doing which he often spoils and disfigures them. What is more beautiful than a fine horse with an elegant long tail and flowing mane, waving in the sports of the wind, and exhibiting itself in a perfect state of nature? Besides, our Creator has given them to the horse for defence as well as beauty."

The same author relates an instance of a fine hunting horse owned by an Englishman, which would carry his rider over the highest five barred gate with ease; but he thought the horse *did not carry as good tail* as he wished; he therefore had him nicked, and when the horse got well, he could scarcely carry him over two bars. "Thus," said he, "I have spoiled a fine horse; and no wonder, for it weakened him in his loins." Any man of common sense would cheerfully give ten per cent. more for a fine horse whose tail had never been mutilated, than for one which had been under the hands of a jockey.—*Maine Farmer.*

PRUNING WHEN THE LEAVES ARE ON.

The only pruning we hold to be sound, safe and commendable, at this season, is that of the *finger and thumb*,—in other words, *pinching*. It is quite inconsistent with good management to rear a crop of good shoots at two or three inches growth before they attain to woodliness. This economizes the force of the tree, and turns it into a channel where it will promote instead of frustrating the ends we are aiming at. For instance, if we plant a young tree, and have it trimmed with a view to a certain form, and, contrary to our expectations, a shoot breaks out at an unexpected point, and assumes a vigorous habit, and robs all other parts, it would be evidently unwise to tolerate this intruder until it arrives at full growth and then cut it away. Too many trees are thus managed by the neglect of summer pruning or pinching. We admit, however, that there are cases in which the summer pruning, or entire lopping off or cutting of limbs of considerable size may be judicious and safe. For instance, in the case of neglected orchard trees, in a luxuriant state, with dense heads, in which the fruit is deprived of air and light. In such cases, the branches may be thinned out and cut; the surface heals even more rapidly and smoothly than at any other time. But it is unsafe to produce any very sensible diminution of foliage, as it arrests the growth of the tree.

All pruning in the growing season tends to arrest growth. Nurserymen know that a slight pruning of stocks before budding will so arrest growth as to make the bark adhere firmly; when, before the pruning, it lifted freely. It is only on this principle that most all pruning, to promote fruitfulness, must be done at a point of greater or less activity of growth. Late spring pruning is often resorted to as a means of subduing a superabundant vigor, and it has the same effect as root pruning to a certain extent.—*Horticulturist.*

For the New England Farmer.

PIGS AND POULTRY.

Mr. Editor:—The following account, which I have kept for my own satisfaction, I had not thought of making public till recently, upon being advised by a friend; it is not as particular as I should have kept it if designed for the public.

The 26th of July, 1853, I commenced my account with 10 pigs, 6 weeks old, for which I charged $3.50, or	$35.00
The mother	12.00
From that time up to the 26th Feb., 1855, I have given them 56 bags corn, 192 bushels cob corn, 43 bushels barley, 4 bushels oats, 1536 pounds shorts, and 255 pounds rice, making an aggregate cost, including toll, of	281.20
Pigs, mother and all	$328.20

In the spring of 1854, I had 6 pigs from the mother, being her second litter, and 6 pigs from one of the 10 above named. I will now give you an account of what I have received in return for all this outlay, first informing you that I kept my poultry out of the grain charged to the pigs, and also, what grain my horse has had has been taken from that, as it was not convenient to keep separate lots.

In the spring of 1854, I killed 918 lbs. pork	$100.98
I sold 3 pigs for	9.75
I killed 4 pigs July 3d for roasting, 76 lbs., 14c.	10.64
During the last fall and winter killed 1700 lbs.	187.00
Have on hand one of the 10 I began with—one I lost	12.00
Grain for horse during the time	10.00
	$330.37
Add to this for poultry sold during same time	25.72
Eggs do. do.	55.99
	$412.08

Leaving me $84 for about 250 bushels carrots I have given them. The manure, I think, will pay for the trouble of tending them. I have reckoned the pork at 11 cents per pound, as it has averaged me that by cutting it up and selling it in the form of ham, sausages and salt pork. I could not have saved the expense had I sold them whole, at from 7 to 8 cents per pound, the market price.

It is my opinion, formed from this experience, that if farmers will save their own corn, it will pay well to raise hogs to fat. It is also my opinion that cob corn is the cheapest and best food for hogs, till within a week or two of killing.

I have but little faith in the good run of shorts or rice meal for keeping swine.

In this town its inhabitants, almost to an individual, are engaged in agriculture, yet not half of the corn consumed is raised here. Exactly the reverse of this ought to be the case, and might be, with an effort; and the difference would be perceived in the purses of our worthy farmers, as well as in the sight of waving fields of golden grain and granaries filled with corn.

Respectfully yours, S. Woods.

Ashby, March 28, 1855.

For the New England Farmer.

BOOK KNOWLEDGE.

For a thinking, earnest man, who is sincerely desirous of the increase of knowledge and of improvement in all the arts of life, and especially in agriculture, the most important of all arts, it is exceedingly annoying to hear men, and even intelligent men, who of course ought to know better, deriding book-farming, and agricultural science, as wholly unsafe, and unworthy the attention of practical men. There are some such, among good practical farmers, men who are successful in all farm operations, and who are indebted, much more than they are aware, to the labors of science, who are constantly affirming that the knowledge derived from books is of no value to the farmer. I have such a man for a neighbor, who is eminently successful in his own business, and who is always able and willing to communicate valuable and reliable information with regard to his own farm operations. He is inquisitive, and often meets the most inteiligent and enlightened cultivators in the State, and carefully treasures up the information he obtains from intercourse with them. I have derived much useful information from him, and he is ready to impart to all his neighbors, the results of his own experience, but he denounces books, as wholly unworthy of confidence, and quite as likely to teach error as truth. When I receive some important information from this man—or some useful hint, if I do not commit it to paper, but keep it locked up in the recesses of my own breast, its benefit remains with me alone. But if I commit it to the press, it will be carried on the wings of the wind, through the length and breadth of the land, and benefit thousands. Perhaps it is the result of much thought, and labor, and careful experiment, and why should not others enjoy the benefit of it, as well as myself. What danger is there in sending it forth to the world? who can be injured by it? Why should he "hide his light under a bushel," or why should I hesitate to "hold forth" the light which I have received? But if this information is put into type, and fixed upon paper, it becomes book knowledge, and if I were to read it to my neighbor, he would give me a lecture upon the folly of relying upon information derived from books. He is like Omar, who said of the books of the Alexandrian Library: "If they contain only what is in the Koran, they are not needed. If they contain what is not in the Koran, it must be false. Let them be burned." So if books teach only what he knows, they are of no value. If they teach what he does not know, they are not to be trusted. R.

For the New England Farmer.

CHANGE OF SEED.

Mr. Editor:—In an article copied from the *Visitor* into the *Farmer* of last week, the doctrine is laid down with much decision that "the seed of potatoes ought to be changed every five or six years. Even if the seed is brought but two or three miles, the crop will be much better."

There is a class of people, and verily I am one of them, who cannot believe any theory or dogma, however venerable it may be by reason of its age, without some reason that shall seem good and substantial. Now, if there is any good reason for the above-quoted opinion, I should really like to know what it is. I have heard it advanced many a time before, not only in reference to potatoes, but to all the cultivated crops. But what is the philosophy of it? What principle of vegetable physiology makes the change necessary or advantageous? If I plant potatoes this year in the "hop-field," next year in the "rocky lot," and the next year in the "big-oak lot," why, if any change is necessary, is it not just as well as to go to my neighbors, one, three, six, or a hundred miles off for my seed? Will some one tell us?

Allow me to give a little of my own brief experience with the carrot. Some seven or eight years ago, I commenced the business of raising garden seeds. I obtained my orange carrot seed of a neighbor, who has always been in the same business. My first crop was, perhaps, as good as that of my neighbors. There were carrots of every shade of color, from the deepest orange to the purest white. I selected a few of the longest and straightest roots, and those of the darkest color, from which to raise seed for my own sowing. This course I have ever since followed, and have never "changed" my seed. Now for the result so far. Two years ago, as I was harvesting my carrots, a neighbor, who is also in the seed business, and a believer in the necessity of frequently "changing seed" for all vegetables, happened to see some heaps of the roots *from which I had selected such as were thought suitable to set for seed;* and he was so pleased with them, not knowing they were the *rejected* roots, that he at once asked for some of my seed for his own sowing, as his had "run out." Last fall another neighbor, on seeing my crop, wished to renew his seed also, and he was the one from whom I originally obtained my seed. And this result has been obtained with no special advantage from extra manuring or deep plowing; my plowing has all been done by a single horse.

This has been my short experience with a single vegetable. Have not many other persons had a similar experience with other plants, to the improvement of which they have devoted some attention? Yours truly, J. Doolittle.

Elm Lodge, Concord, May 1, 1855.

Remarks.—The above is not only from a *practical* farmer, but one of the most careful observers among us. Knowing his soil, we think it best to state that much of it is a sandy loam, and as easily plowed, probably, with one horse, as most of our lands are with two, or a pair of oxen.

For the New England Farmer.

OF THE PRACTICAL VALUE OF ANALYSIS OF SOIL.

BY HENRY F. FRENCH.

In a former number, some remarks were made by me tending to show the danger of relying entirely on theory, in determing the value of manures, because the same substances, so far as chemical investigation can discover, are known to produce very different effects as fertilizers, as well as to differ entirely in appearance and form.

I will now re-publish part of an article furnished by myself to the *Country Gentleman*, in continuation of the same general subject, which is so interesting to all reflecting tillers of the soil. The chemist may do much for the farmer, who is already indebted to chemistry, for the greatest improvements in agriculture, which have been made in the last century. But there is a Power beyond and above the reach of science, "that doeth all things well," and "whose ways are past finding out," and it is important always to have clearly in mind, the point where human knowledge stops, and where man must behold, and yet not comprehend the workings of the Infinite. The whole matter of the re-production by plants of their like from the seed is as much a mystery to the philosopher as to the child, and we ask the reader of the suggestions below, to reflect long enough upon the subject of them, to habitually ask himself, as he watches the springing of his grain, and the blossoming of his trees, the thrilling question, What is life?

Besides the operations which plants are constantly undergoing, and which we refer to *chemical* laws, there are other phenomena of vegetation, which are by no means so well understood. We have seen that the chemist can detect not only the various substances of which grain, as *wheat*, for example, is composed, but can tell us the precise proportions in which these elements are found to exist in it. And, moreover, every one of these elements he can find in his laboratory, and he can combine them in the exact proportions, in which they exist in the wheat. Then the question occurs, why, with this knowledge, and the materials at hand, *why can he not make wheat?* Yet the most skilful chemist that has ever spent a life-time in the laboratory, has never presumed to pretend that all his science could enable him to form a single grain.

Chemical action is doubtless going on in all animals and plants, living as well as dead, but chemistry by no means solves the mysteries of vegetable growth. In growing plants, the chemical forces are subordinated to an invisible, intangible, all-controlling essence; they are under the guardianship of a power higher than they, which modifies all it pervades, and this power is the *Life Principle*, or *Vital Force*.

If we contemplate the turf at our feet, in spring time, we observe not the uniform results which chemical causes should produce, but we see, springing from the same earth, nourished by the same soil, watered by the same rain and dew, breathed on by the same air of heaven, plants of different form and size and qualities—the rose, the lily, the crocus and the violet, flowers of different colors and fragrance.

Whence arises this diversity? Why are not plants thus subjected to the same influences, exactly alike in their structure and qualities?

To these questions, the *Chemist* can return no answer, through his science. We can only say, that in every little seed which we deposit in the ground, there is a principle of identity with its kind,—a *soul* as it were, which commands the elements of the earth, and air and water, and directs their curious arrangement into leaf, and stalk, and flower, and fruit, suited to the body in which it shall manifest its earthly being, thus ordering, in spite of man's feeble efforts to modify its growth, whether it shall spring up the hyssop on the wall, or the cedar of Lebanon.

Human knowledge can make no approximation to a comprehension of this Principle of Life. We take from apples of the same tree their several seeds, and plant them side by side. They spring up, and become fruitful trees, each producing a fruit of different color, and size and taste. The chemist could have analyzed these seeds, and shown us their exact constituent elements; but think you the power of any human science could, from any investigation, have detected a difference, which should have indicated, or which can at all explain the diversity of the fruit?

Through the controlling influence of this Vital Power, new substances are consequently formed in plants and animals, which human art can never imitate, such as wood, and sugar and starch in plants, and fat and flesh in animals. In the egg of a bird, the chemist, indeed, may detect the same substances which may be found in the living creature produced from it, but analysis fails utterly to show him why, by the application of (artificial) heat, these substances should assume the form of flesh and bone and feathers, and finally of a breathing, living animal.

You have heard of the good woman, who called at the eccalaobian in New York, where she had heard they made chickens in some way without the help of hens. She asked to be shown the process. An attendant took her to the room where the heat was applied to the eggs, and began to explain the operation. But the good lady was not fully satisfied. "Make chickens out of eggs," cried she indignantly, "who could not make chickens out of eggs; I thought you had found a new way of making chickens!"

When life ceases, either in plant or animals, the known chemical laws resume their sway, and soon reduce the lifeless mass to substances of known qualities, again to rise into new life in other forms.

Of the operation of these laws, enough is known to render them, in practice, highly useful to the cultivator of the soil. Indeed the study of Agricultural Chemistry is one of progress for a life-time, one which from its nature, must perhaps always remain inexhaustible.

But the question will occur, must the farmer, the gardener, the lady who rears a few flowers, in order to cultivate intelligently, be familiar with all the abstruse mysteries of this science?

This is by no means essential, but every cultivator should at least know enough to guard against imposition and fraud, by the dealers in patent manures, and new theories of cultivation.

Every educated person, of either sex, should know enough of chemistry, to understand the language of books and papers and the conversation of intelligent men upon this subject most interesting to all, for it certainly is not respectable, to be ignorant of the common principles of a science which engages the attention of so many distinguished minds. And it may be added, as to those whose business it is to cultivate the soil, the more extensive their knowledge of the *principles* of husbandry, the greater will be their interest in their business, and the sooner will it be raised from a position of mere physical toil, to that of a rational and noble science.

MOTH AND BEETLE HUNTING.

With the first swelling of the buds upon your fruit trees, these enemies of your garden pets make their appearance, to follow up their work of destruction, until the frosts of Autumn cut off the leaves and end their labors. The practised fruit-grower is already upon their track. Here among the dwarf pears you can reach them with thumb and finger, and crush a world of insect life in a single moth. There is in the last half of April, and early May, a beetle of blackish color, with a square upon his back at the insertion of his wings, made up of four little squares, two of jet, and two of dull yellow, that calls for your attention. You will find her at the end of the blossom buds, doubtless laying her vampire brood among the young fruit. She is about five-eighths of an inch long, and will fall to the ground or fly off unless you approach her cautiously. Take a turn among all your young trees every morning, and see that they are cleared of these depredators. Occasionally you will find a cluster of eggs glued to a limb that you overlooked in the fall. See that they are removed and burned. Do not think that the young dwarf pear, set out last fall, will take care of themselves. The moths and beetle have a lien upon them, and if you do not improve the property you invested in them, the natural proprietors will resume their inheritance, and save you the trouble. Follow up your attacks upon these insects with vigor, remembering that every moth mother slain is a colony of insects exterminated.

Soon the large tribe of the *Melolonthians* will make their appearance, and they may be caught in great multitudes. The May beetles can be exterminated by shaking them from the trees they infest upon a cloth, either at evening or early in the morning, while the dew is on, when they do not fly much. Empty your cloth into the fire.

Another method of destroying these insects in the winged state is by drowning. This is best adapted to those whose habits are nocturnal. We place a half hogshead, or large open vessel in the fruit garden, half full of water. Place a narrow strip of board across the top, and at night put a lighted lanthorn upon it. The insects will be attracted by the light, and in attempting to alight, "blind as a beetle," they will meet a watery grave.

Another good trap for them is glass bottles partly filed with sweetened vinegar and water, and hung up in the fruit trees. Multitudes will be tempted to their final undoing by these bottled sweets. These insects are legitimate game, and fruit-growers will find much more satisfaction in killing them than in shooting the birds, who are their fellow-helpers in moth hunting. W. C.
—*Am. Agriculturist.*

FATTING CATTLE.

In fatting animals, the less exercise permitted the better. Exercise is doubtless necessary to ensure the health of all animals; but we must recollect that fatting is, in itself, an abnormal condition, that all animals, rapidly accumulating fat, are more or less diseased. The celebrated breeder, BAKEWELL, understood this fact, and was in the habit of turning his sheep into marshy meadows for the purpose of getting them diseased. In such a condition they matured earlier and laid on fat with surprising rapidity.

Salt is good for all animals, and probably is, in some form or other, necessary to *health;* but we know that salt is not good for fatting animals, and should never be given if the object be the accumulation of fat. Experiment agrees with theory on this point. We recolleet when conducting some extensive experiments on sheep, a practical friend urged us to give them salt, assuring us that his sheep did much better with than without salt. The sheep on which we were experimenting were doing well at the time, averaging about 2 lbs. increase each, per week. To please our friend, we gave the sheep salt, of which they partook freely, but in the fortnight during which they were allowed salt, every sheep lost weight. We would give them as much water as they would drink; if fed roots, they will require, and drink less.

In fatting animals, perhaps, the most important point is to obtain such as are well calculated, from breed, disposition, and symmetry, to mature early and fatten rapidly; then keep them warm, (be careful they are not too warm and that they do not prespire) quiet, and clean. Feed they regularly and let their food be highly nitrogenous, with sufficient available non-nitrogenous matter united with the required bulk.—*Ohio Farmer.*

MORAL EFFECT OF CERTAIN PURSUITS.—Mr. Pierpont, in one of his lectures, mentioned a fact in evidence of the moral advantages of the study of natural science, which is worthy of notice. He stated that although many poets and orators and men devoted exclusively to literary pursuits have been addicted to intemperance and other solitary habits, yet he could not recollect a solitary instance of a vicious, a dissipated or intemperate man of science. This statement may be too unqualified; but there can be no doubt of the general correctness of it. It is generally admitted by those who have written upon the habits of distinguished men, that those who teach morality are often ill-tempered and misanthropic, while those who devote their time and energies to the study of nature, are remarkable for a quiet, amiable and cheerful temper. The cause of this difference of temper may be that moralists are constantly finding something in the vices and

prejudices of society to excite their indignation, and to cherish a misanthropic humor; while he who pursues the study of nature sees a beauty and harmony and consistency pervading all her works that breathe their cheering influence into his own soul.—*Country Journal.*

For the New England Farmer.

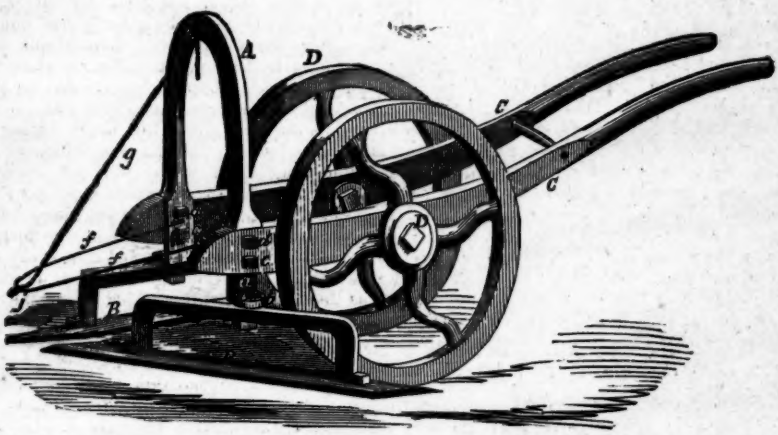
THE WEEPING WILLOW.

I presume that it is known to few that, for the weeping willows that hang their pensive boughs beautifully over the hallowed graves of the dead, England and America are indebted to the distinguished Lady Mary Montague. It is said that while at Constantinople, whose husband at that time occupied the embassy, she sent, in a basket of figs, home to her intimate friend, the poet Pope, a sprig of the Asiatic willow. He set it out in his garden, and from that twig has come all the weeping willows in England and America.

Lady Mary Montague was born about the year 1690, in Nottinghamshire, England; she was one of the finest and most accomplished scholars of her age; was cotemporary and on terms of intimacy with Hannah More, Addison, Pope, Steele, Bishop Burnet, &c.; was the wife of the accomplished Charles Montague for nearly fifty years; at the court of George I. for some four years; resided upwards of twenty years in Italy and its neighborhood; lived to the advanced age of seventy-three, and died August 21, 1762.

To Lady Mary, also, it is said, belongs the honor of introducing inoculation for the small pox, a practice which has annually saved many lives.

R. H. Howard.



A NEW MACHINE FOR HOEING.

J. A. Robinson, of Fremont, N. H., is the patentee of a new machine for hoeing. This implement is of very recent date, having been patented on the 20th of February last. It embraces a principle of weeding entirely new in itself, and is designed for cultivating all vegetables planted in drills, or rows; it is particularly adapted to cultivating drill-sown *wheat*, and other small grains. It is conceded by farmers and gardeners, who have examined it, to be a very great improvement in cultivating the *root* crops.

The facility and accurateness with which this implement operates, in performing that most laborious and expensive part of cultivation—*weeding*, enables the farmer to cultivate his carrots, onions, &c., with one-third the usual expense of labor.

☞ The statement above we give in the words of the patentee himself. We have not worked the implement, and of course have no personal knowledge of its merits. A gentleman, however, who is a large farmer, and one who is thoroughly acquainted with similar implements, informs us that he has used it with much satisfaction—finding it to accomplish the work effectually, and with ease to the operator. He states that when intended for field use, it should be made somewhat heavier and stronger than one employed merely in the garden. Price $5, and for sale at the warehouse of Messrs. Ruggles, Nourse, Mason & Co.

Watch Manufactory.—Watches equal to the best imported, are manufactured in the suburban town of Waltham. The prices for which these are sold range from $20 to $200 each, at retail. A large building has been erected on the south side of Charles river, which is kept closed against intrusive eyes. The company is doing a large business.

For the New England Farmer.

THE BIRDS OF NEW ENGLAND.

Mr. Brown:—Dear Sir,—Will you be kind enough to inform me of the most approved authors upon the subject of American Ornithology, and where their works can be purchased. Many of your female readers have been interested in the articles published in the *Farmer*, on the "Birds of New England," written by Mr. S. P. Fowler, of Danvers, and perhaps that gentleman can give the desired information. Yours truly,

April 4, 1855. Laura.

REMARKS BY S. P. FOWLER.

In answer to the request of your fair correspondent I would say, there is, perhaps, no part of the natural history of our country better written or illustrated, than its ornithology. Many valuable and beautiful books have appeared upon this subject, and are to be found in some of our public libraries, and in the mansions of the wealthy; but it would be difficult to direct a person to a book-store where could be obtained a work descriptive of all our birds, at such a price as would come within the means of the general reader. A cheap edition of Alexander Wilson's "American Ornithology," with Charles Lucien Bonaparte's continuation, has never been published, to my knowledge, in this country. An edition appeared from a New York press in 1852, styled "Wilson's American Ornithology, with additions, including the birds described by Audubon, Bonaparte, Nuttall and Richardson." The purchaser of this book, upon seeing such an array of great names amongst ornithologists, running down its back, would be led to suppose that he had at last found a cheap edition of ornithology, describing the habits and other useful and interesting facts relating to all our birds; but in this supposition he would be mistaken. Still, this edition possesses value to many students in ornithology, in its full and excellent synopsis and copious notes by Sir William Jardine and its editor. It can be found in the book-stores of Boston and New York. No cheap edition of Audubon's splendid work has as yet appeared in this country.

Mr. Thomas Nuttall published in 1832 his "Manual of the Ornithology of the United States and of Canada," at Cambridge, in two volumes, containing many wood engravings. In his preface, Mr. Nuttall says, "it was my principal object to furnish a compendious and scientific treatise on the birds of the United States, at a price so reasonable as to permit it to find a place in the hands of general readers." It is known to many how well and truly he accomplished his purpose. The first volume contains the land birds, with an introduction of thirty pages, presenting the general subject of ornithology with great beauty and interest. The second volume gives us the water birds, with an appendix drawn from discoveries made by Richardson and Swainson. We are sorry to add in connection with this work, that this valuable "Manual of our Ornithogy" has become scarce; we can point to no book-store where it can be obtained. A few copies can only occasionally be found at Burnham's, in Cornhill.

In order to a full and better acquaintance with the natural productions of our commonwealth, a survey was ordered to be made by our Legislature in 1837. One portion of the work, allotted to a gentleman on the commission, was our ornithology. It was understood he was to enumerate the birds of Massachusetts, and to give such information respecting their habits, as would be particularly interesting to the cultivators of the soil to know. The report on our birds appeared in 1839, which, together with the other reports on our natural productions, was, by our Legislature, distributed by giving each member, and various literary institutions and societies, one copy each, limiting the distribution in its descent to the people, to incorporated societies and academies, and giving but one copy to every town in the commonwealth, however large it might be. The copies remaining not distributed were laid aside for future Legislative action. The new members of the next Legislature finding them on hand, and perhaps in their way, voted the balance of the edition into their own pockets, and that is the last we hear of it. Such has been the action of our Legislature in regard to many of its valuable printed reports, and we are sorry to admit, in years past, we have sometimes participated in it. But there is one consolation to our cultivators of the soil, in their never having seen, and scarcely knowing of the books prepared for them by the kind forethought of our old and respected commonwealth; it is, if they had the report of the ornithology of Massachusetts in their hands, they could not tell from any description in the work, or reference to any author, a Crow Blackbird from a Cow Bunting.

A valuable local history of the birds of Long Island was published in 1844, by J. P. Giraud, Jr. It is particularly full and satisfactory in its description of our water birds. The object of the work is best described by its author in his preface, where he says, "He has been induced to offer the present volume with a view of placing within the reach of the 'gunners' the means of becoming more thoroughly acquainted with the birds frequenting Long Island." So we presume the work would be more interesting to a rough-faced shooter of water-fowl, than it would be for "Laura."

In regard to the foreign editions of "Wilson's Ornithology," one was published in 1832, in three volumes, with colored figures, in London, with Sir William Jardine's notes. This edition contains Bonaparte's continuation. It is advertised for sale by Little & Brown, book-sellers in Boston, for $25. This is the cheapest edition of our ornithology, with colored plates, we are acquainted with. An edition of "Wilson's Ornithology" was published in 1831, in Edinburgh, by Constable & Co., in the Constable's Miscellany, and edited by Prof. Jameson, in four small volumes. They contain what was written by Wilson and Bonaparte, with their synonyms, also an appendix containing additional details by Audubon, Richardson and Swainson. This is a neat and satisfactory pocket edition, containing some four or five plates, very suitable for "Laura," or any other lady. But where it can be obtained I know not; the one I possess was ordered from London many years since.

In view of all that we have now written, it would seem that we have not at this time a cheap and complete work, embracing a full history

with specific descriptions of all our birds. Such a book is wanted by the farmer and horticulturist to place in their library, for reading and reference, alongside of other works on the cultivation of the farm or the garden. "Laura" also, and other persons, who love to study the beautiful in nature, would like to own a perfect and comparatively cheap edition of American ornithology. Who will furnish such an edition?

S. P. Fowler.

Danvers-port, June 16, 1855.

A "WAKE" AMONG STUMPS!

OR, THE "ORANGE STUMP PULLER" IN FITCHBURG.

Willis, with his machine, was on hand according to promise, and assailed the stumpy race with vigor and success. Many hundreds, perhaps thousands, during the day, were witnesses of his exploits. The power of the machine is great and astounding. With a single yoke of cattle, the power made to bear on a stump rose from twenty-five to eight hundred tons purchase; and, with suitable gear, I see not why it might not be indefinitely increased so as to move mountains as well as massive roots.

The stumps he routed were not pigmies, but altogether respectable in girth and expanse of root, and most of them rather recently cut; and had they remained undisturbed, they might have outlasted the most robust man or boy, who saw them hurled from their dominion. The average time consumed on each may have been five minutes, though sometimes, by the aid of cross-chains, four and five would heave up at once. A few hours covered a large area with huge carcasses; it was what "war hawks" might call a "well-fought field," with, however, no blood or groans. The spectators were impressed with but one sentiment, to which they gave enthusiastic utterance, namely, that the "stump puller" has the element of prodigious power, a power easily applied in promoting the good appearance and value of rocky and stumpy lands. Every farmer who has lands to cultivate or occupy by buildings, knows that their value is much diminished by these odious excrescences—excrescences that may out-live him and his sons after him; the many live and live on through sunshine and storm, and look with scorn on the longevity of the great majority of mortals.

Moreover, as the eye was made for beauty, and beauty for the eye, who can look on a lawn-like, verdant field, without being happier? Or who can look on a field snarled and blackened by stumps, without wishing these "eye sores" dispatched to Guinea or Botany Bay? Still, many a farmer will perhaps daily pass and repass, for a quarter of a century, a spectacle of such deformities, and wish it gone, all gone, and he, and the son in his likeness, will live wishing, and die wishing, and there ends the stump stir with him. Whereas, should he arouse himself to a little action, and apply this "puller," the first day might throw up an acre of these "eye sores," the second make of them a durable fence, the third plow the field, the fourth plant or sow it, and then, loaded and waven with fertility, it would at once remind us of the field that Heaven had blessed.

The economy of this operation must not escape notice. Stumps were drawn on this occasion, in a few minutes, at a few cents expense, which, by ordinary process, would have demanded several days and dollars to extirpate. Had some of them lay on railroad route, it was estimated that to remove them, by Irish labor, might have cost from ten to twenty dollars.

This machine should rank among the many appliances of a civilizing kind which characterize our times. It causes the crooked to become straight and the rough places smooth, and spreads fertility and a charm over rugged nature. No town, no group of towns, can apply this instrumentality to their fields without sensibly promoting their beauty, thrift and value. The town of Orange, where the proprietor resides, is a happy illustration of what we have in view. Gentlemen were present from that place, and testified touching its practical bearings among them, where it is most known and has been most used. Many of their best fields have been brought into notice, in some sense created, by the agency of this machine. This may be known and read of all, for, as the intelligent traveller glides through the smiling village of South Orange, he everywhere sees evidences of fresh improvement; he sees large fields of rough land becoming smooth, and new and beautiful fields breaking into view, as by enchantment, and on inquiry he learns that the Patent Stump Puller has had a hand in all this advancement.

DESTRUCTION OF WOOD.

Dr. Hawks, in a late address before the New York Geographical Society, said:

"Civilization uses a vast amount of wood, although for many purposes it is being fast superseded; but it is not the necessary use of wood that is sweeping away the forests of the United States so much as its *wanton destruction*. We should look to the *consequences* of this. Palestine, once well wooded and cultivated like a garden, is now a desert—the haunt of Bedouins; Greece, in her palmy days the land of laurel forests, is now a desolate wast; Persia and Babylon, in the cradle of civilization, are now covered beneath the sand of deserts produced by the eradication of their forests. It is comparatively easy to eradicate the forests of the North, as they are of a gregarious order—one class succeeding another; but the tropical forests, composed of innumerable varieties, growing together in the most democratic union and equality, are never eradicated. Even in Hindostan, all its many millions of population have never been able to conquer the phœnix-life of its tropical vegetation. Forests act as regulators, preserving snow and rain from melting and evaporation, and producing a regularity in the flow of the rivers draining them. When they disappear, thunder storms become less frequent and heavier, the snow melts in the first warm days of spring, causing freshets, and in the fall the rivers dry up and cease to be navigable. These freshets and drouths also produce the malaria, which is the scourge of Western bottom-lands. Forests, though they are first an obstacle to civilization, soon become necessary to its continuance. Our rivers, not having their sources above the snow-line, are dependent on forests for the supply of water, and it is essential to the future prosperity of the country that they should be preserved."

EXTRACTS AND REPLIES.

GRUBS IN CORN.

Mr. Editor:—Will you, or some of your numerous correspondents, inform me through the columns of the *Farmer*, whether there is any remedy for the *grubs* which are destroying whole fields of corn, pumpkins and young hops, in this vicinity. Verdant Farmer.

Elmore, Vt., June 16, 1855.

Remarks.—We know of no remedy but that of the thumb and fingers; and a careful application of these will accomplish much. It is a tedious and unpleasant process, we admit, but a necessary one. There is seldom but one worm in a hill, and an observing eye will soon detect his operations upon one of the plants, and a plunge or two of the fingers into the ground will bring him to the light, when he may be despatched. Perhaps some of our writers may suggest a different remedy.

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THE RAPE PLANT.

Dear Sir:—"J. R.," in the first June number of the *Farmer*, recommends the raising of rape or cole for various purposes. Having received a parcel of seed from the patent office, through the politeness of the Secretary of the Massachusetts Board of Agriculture, the last year, perhaps some of your readers would like to know of my success. I was requested, if successful, to report the result to this (the patent) office.

I sowed a part of the seed as soon as received, (in May, 1854,) on good corn land. The plants came up well and flourished finely until September, when the leaves withered and fell off, leaving the bare stem, without flowering, a dry monument to mark the spot where something of the cabbage kind had grown. A neighbor, wishing for cabbage plants, took some two hundred of the plants and transplanted them for *cabbage*, and his success was the same as mine. Farther experiments may be more successful, but I fear *rape* in our vicinity will prove an uncertain crop.

Sudbury, Mass., 1855. A. B.

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YOUNG MEN—CATTLE SHOWS.

Mr. Editor:—Cattle-show day is a day of great importance to us farmer boys—a kind of a second fourth of July. But still, it is not a day of as much importance as we wish it were, and think it ought to be. A number of the "plow-boy family" met a few evenings since, and were talking—I will not say *discussing*, for fear you may think we were reaching beyond our sphere—about our cattle-shows, and the thought naturally arose, why cannot we take an active part and have direct interest in our fairs? We are now limited to a certain extent, in a few particulars, and in these are under the control of others, so that, if there are any honors or satisfaction gained, *they* obtain them. In other words, while we are beating the bush, they are catching the bird. We wish for something we can exercise our own abilities upon, free and independent of others. Why cannot we have a declamatory or oratorial exercise? There are many wealthy and influential men, we have no doubt, that would be glad to promote such an object, if they understood it rightly, and grant a few small prizes for the competitors. It would be of no expense to the society; a rude stage upon a common would answer all purposes; and here the young farmer might be preparing himself, in several ways, for future usefulness. There are many ways, perhaps, better than this, in which the officers of our societies, had they inclination, might help the forgotten plow-boy and stimulate him to higher examples. Will they not take note of this, and remember us at future shows? Farmer Boy.

Remarks.—Yes, Mr. "Plough Boy," we will take note of what you say, as your suggestions are of a practical character, and in the right direction. Our Middlesex Show is to be holden on the 26th of September next, and we now offer one premium of *three dollars* and another of *two dollars* for the first and second best declamation upon any agricultural subject, by any young man between the ages of 14 and 20 years. The exercise to take place at some convenient time on that day, by the composer himself, and not to exceed ten minutes in the delivery. Competitors to be eligible from any town in the State.

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PRESERVING FRUITS.

My Dear Sir:—I send enclosed a notice of a new kind of cans for preserving fresh fruits and vegetables. Can you give your readers any information concerning them? What their size, price, &c., and whether they can be procured in Boston? It is very desirable to find something to accomplish the object proposed, easily and economically. If you can aid the public by advice or information on this subject, you will do a good work. Yours very respectfully,

Bedford, June 7, 1855. W. Cushing.

Remarks.—Arthur's patent air-tight, self-sealing can, is manufactured and sold by Arthur, Burnham & Co., at 60 South Tenth Street, Philadelphia. The prices are for pints, $2 a dozen; quarts, $2,50; half gallon, $3,50; and gallons, $5,00. It is said the can receives no injury whatever in being sealed or unsealed. Green currants or gooseberries may be kept perfectly good for many months by sealing them up with wax or rosin in clean junk bottles. We have tomatoes now (June 25) perfectly good put up in bottles last October. They were stewed and salted a little, and turned hot into hot bottles, and sealed with common red sealing wax—the whole being a perfectly simple and easy process.

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ABOUT POTATOES.

Mr. Editor:—Being a subscriber of your valuable paper, I have noticed for the last few weeks a controversy upon the potato between "S. P." and "B. W." Having myself had some experience in the business of raising potatoes, I wish to relate an instance that came under my observation. In the spring of 1854 I planted an acre of ground with potatoes. One-half I planted with large and the other with small potatoes. The

ground upon which the small potatoes were planted received the same amount of manure and the same attention in hoeing. I received 120 bushels from the acre; 70 bushels from the part planted with large and 60 from the part that was planted with small potatoes. Now if "B. W." will explain this falling off, not only of the amount but size of the potatoes, I would be obliged.

Yours truly, C. S.

TO DESTROY THE ONION MAGGOT.

Tobacco steeped in water and poured along the rows, directly upon the plant, will effectually prevent the ravages of the onion worm. This I have from several reliable gardeners, who speak from experience, and thinking it worth knowing through the community, I send the statement to the *Farmer*, (*everybody's newspaper*,) for publication. INGHAM.

Lebanon, N. H., June 18, 1855.

BUCKWHEAT OR TURNIPS.

What can I sow to advantage on a piece of new land prepared for millet, (but cannot get the seed,) a part of which is well fished. I am more in want of a crop than benefit to the land.

W. P. H.

REMARKS.—There is plenty of time for a crop of buckwheat, ruta bagas or flat turnips.

GRAPES AND WINE.

In your paper of last July, I observed a valuable piece on the use of the grape as a food or medicine, which was too good to pass unnoticed.

The most eminent physicians, and men who have travelled in grape countries, agree with you. It is a common saying, that in wine countries there are but few drunkards. The writer in the *Observer* finds an exception in Paris? What less could be expected of a city like Paris. There is a wonderful difference between a man's sitting under his own vine, eating the fruit and drinking the juice, and going to grog-shops and other detestable places, and taking their wines and other intoxicating poisons.

Alcohol, whether clear or adulterated, tends to create unnatural thirst, till, like a poisoned rat, he drinks himself to death. The pure juice of the grape, or the fruit, tends directly the other way, and also to give strength and health and vigor to the system.

The grape is of the easiest culture, by slips, cuttings, grafting, or transplanting from the swamps. There is in this region the best of table grapes, and the best of wine grapes of native growth; the former ripening in August, and being sweet, productive, and free from pulp. I suppose they may be found elsewhere. There are families in this place who have made and kept for years excellent wine for medical purposes, of fine flavor and color, and without adding alcohol, spirit, or coloring matter to the wine. There are two skilful physicians near by, who use this wine, and no other, for medicine.

One of the greatest pleas for using intoxicating liquor is, the idea that our Saviour used, directed it, &c. A very great mistake and absurdity. The wine he made was that which he distinguished by calling it the fruit of the vine. Pliny, who lived at the time of our Saviour, says good wine was that which was destitute of spirit. Plutarch calls that wine best which is harmless, and that the most useful which has the least strength, and that the most wholesome in which nothing has been added to the grape.

The Commissioner of Patents has had a bottle of excellent wine presented to him, which, he says, has no intoxicating power. I apprehend no difficulty in making such wine, and having it improve by keeping. The grape can be kept the year round, and the juice pressed out when wanted. Every family, or physician, or church officer can make what is needful, and keep it in small quantities easier than in large, and know what they are using.—PHINEAS PRATT.—*American Agriculturist.*

PROFITS OF FRUIT.

Examples almost without number may be given, where single trees have yielded from five to ten dollars a year in fruit, and many instances in which twenty or thirty dollars have been obtained. If one tree of the Rhode Island Greening will afford forty bushels of fruit, at a quarter of a dollar per bushel, which has often occurred, forty such trees on an acre would yield a crop worth four hundred dollars. But taking but one-quarter of this amount as a low average for all seasons, and with imperfect cultivation, one hundred dollars would still be equal to the interest on fifteen hundred per acre. Now, this estimate is based upon the price of good winter apples for the past thirty years, in our most productive districts; let a similar calculation be made with fruits rarer and of a more delicate character. Apricots, and the finer varieties of the plum, are often sold for three to six dollars per bushel; the best early peaches from one to three dollars; and pears, from hardy and productive trees, two to five bushels per tree, with good management, is a frequent crop; and on large pear trees five times this quantity. An acquaintance received eight dollars for a crop grown on two fine young cherry trees, and twenty-four dollars from four young peach trees, of only six years' growth from the bud. In Western New York, single trees of the Doyenne or Virgalieu pear have often afforded a return of twenty dollars or more, after being sent hundreds of miles to market. An acre of such trees, well managed, would far exceed in profit a five hundred acre farm.

But the anxious inquiry is suggested, "Will not our markets be surfeited with fruit?" This will depend on the judgment and discretion of cultivators. With the exception of the peaches of Philadelphia and the strawberries of Cincinnati, a great deficiency is still felt in all our large cities. Of these two fruits, large plantations are brought rapidly into full bearing. The fruit, when ripe, quickly perishes, and cannot be kept a week; yet thousands of acres in peach trees, bending under their heavy crops, are needed for the consumption of the one city, and broad, fifty acre fields, redden with enormous products, send many hundred bushels of strawberries daily into the other. If, instead of keeping but three days, sorts were now added that would keep three months, many times the amount would be needed. But the market would not be confined to large

cities. Railroads and steamboats would open new channels of distribution throughout the country, for increased supplies. Nor would the business stop here. Large portions of the eastern continent would gladly become purchasers, as soon as sufficient quantities should create facilities for a reasonable supply. Our best apples are eagerly bought in London and Liverpool, where nine dollars per barrel is not an unusual price for the best Newton Pippins. And by being packed in ice, Doyenne pears, gathered early in autumn, have been sold at mid-winter in Calcutta, peaches have been safely sent to Jamaica, and strawberries to Barbadoes. The Baldwin apple has been furnished in good condition in the East Indies, two months after it is entirely gone in Boston.

GOOD ADVICE.

Eat only what is proper food;
Drink only that which does you good;
Spend only what you can afford;
Lend only what will be restored;
Then you will have no cause to say,
"I was a fool on yesterday!"

FADELESS IN A LOVING HEART

Sunny eyes may lose their brightness;
Nimble feet forget their lightness;
Pearly teeth may know decay!
Raven tresses turn to gray;
Cheeks be pale and eyes be dim;
Faint the voice and weak the limb;
But though youth and strength depart,
Fadeless is a loving heart.

SIMPLE TRUTH.

There's not of grass a single blade,
Or leaf of loveliest green,
Where Heavenly skill is not display'd
Or Heavenly Wisdom seen.

FAMILY JARS.

Jars of jelly, jars of jam,
Jars of potted beef and ham,
Jars of early gooseberries nice,
Jars of mincemeat, jars of spice,
Jars of orange marmalade,
Jars of pickles, all home made,
Jars of cordial elderwine,
Jars of honey superfine:—
Would the only jars were these
That occur in families.

HAY FOR COWS IN SUMMER.—An observing, intelligent and successful farmer informs us that he is in the practice of feeding his cows with hay in summer, particularly if the season is such as to afford flush pastures. His reasoning is that a full, rapid and vigorous growth of grass gives to cattle that feed upon it, a desire for something to absorb the excess of the juice in their food. Dry hay they devour greedily, and though in ever so small quantities, evidently with the most beneficial effects. Every farmer must have observed that in dry seasons, horses, cattle and sheep, kept in good condition upon herbage parched and apparently scant, while in wet seasons, in tall pastures, though always full, the process of fattening with them was slow. Dry fodder in such cases is required to give substance and tenacity to the green, and can be profitably used by feeding it to horses and cattle.—*Newburg Telegraph.*

For the New England Farmer.

DOES THE CURCULIO PUNCTURE THE APPLE?

MR. EDITOR:—I have a fine-looking young orchard of 100 Baldwin trees, set twelve years ago on rocky upland on the west side of Mystic Pond; the soil is uneven, from gravelly knolls to loamy hollows, underlaid with blue gravel; it is an excellent soil for peach trees both to grow and to bear; it is situated high, commanding a view of Boston and vicinity, yet it is mainly what would be called a warm, sheltered location, on account of the forests above it on the north-west.

This orchard has blossomed repeatedly, yet no fruit is obtained of any amount: for the fruit is punctured in thesame manner as plums by the curculio, but with not exactly the same results; the fruit, by means of the marks, if it holds on, becomes knotty as it grows, and consequently worthless; the marks are already made to the number, on some, of seven or eight, or more.

There was a fine blossom this year, enough to produce, were the trees on the plain, two hundred barrels of fair fruit; but with the operations of those insects I do not expect hardly a single barrel of handsome apples.

Now can you or any of your able correspondents give any light upon this subject, and tell me whether I can ever expect fair apples on that soil and location? If things go on as they have thus far, the sooner I cut down the apple trees and set out peach trees, the better. I should have remarked that the land has been kept under the plow the whole time, and good crops of vegetables obtained. JOHN P. WYMAN.

West Cambridge, June 16, 1855.

REMARKS.—We have no doubt that the curculio does puncture the apple. What the remedy is to be we cannot say. Lime, plaster or ashes will prevent their depredations on plum trees, but the operation on an orchard, unless the trees were quite small, would be too tedious and expensive. Will correspondents enlighten us?

TROUTING.

We put into the brook just below a smart foamy fall. We have on cowhide shoes and other rig suitable. Selecting an entrance we step in, and the swift stream attacks our legs with immense earnestness, threatening to take us off from them. A few minutes will settle all that and make us quite at home. The bottom of the brook is not sand or gravel, but rocks of every shape, every position, of all sizes, bare or moss-covered. The stream goes over them at the rate of ten miles an hour. The descent is great. At every few rods cascades break over ledges and boil up in miniature pools below. The trees on either side shut out all direct rays of the sun, and for the most part the bushes line the banks so closely, and cast their arms over so widely, that they create a twilight—not a gray twilight losing its lustre, but a transparently black twilight, which softens nothing, but gives more ruggedness to the rocks, and a sombre aspect even to the shrubs and fairest flowers.

It is a great matter to take a trout early in

your trial. It gives one more heart. It serves to keep one about his business. Otherwise you are apt to fall off into an unprofitable reverie; you wake up and find yourself standing in a dream, half-seeing, half-imagining, under some covert of over-arching branches, where the stream flows black and broad among the rocks, with moss-green above the water and dark below it.

But let us begin. Standing in the middle of the stream, your short rod in your hand, let out twelve to twenty feet of line, varying its length according to the nature of the stream, and, as far as it can be done, keeping its position and general conduct under anxious scrutiny. Just here the water is mid-leg deep. Experimenting at each forward reach for a firm foothold, slipping, stumbling over some uncouth stone, sliding on the moss of another, reeling and staggering, you will have a fine opportunity of testing the old philosophical dictum that you can think of but one thing at a time. You *must* think of half a dozen; of your feet, or you will be sprawling in the brook; of your eyes and face, or the branches will scratch them; of your line, or it will tangle at every step; of your far-distant hook and dimly-seen bait, or you will lose the end of all your fishing. At first it is a puzzling business. A little practice sets things all right.

Do you see that reach of shallow water gathered to a head by a cross-bar of sunken rocks? The water splits in going over upon a slab of rock below, and forms an eddy to the right and one to the left. Let us try a grasshopper there. Casting it in above and guiding it by a motion of your rod, over it goes and whirls out of the myriad bubbles into the edge of the eddy, when, quick as a wink, the water breaks open, a tail flashes in the air and disappears, but re-appears to the instant backward motion of your hand, and the victim comes sklittering up the stream, whirling over and over, till your hand grasps him, extricates the hook and slips him into the basket. Poor fellow! you *want* to be sorry for him, but every time you try you are glad instead. Standing still, you bait and try the other side of the stream, where the water, wiping off the bubbles from its face, is taken toward that deep spot under a side rock. There, you've got him! Still tempting these two shores, you take five in all, and then the tribes below grow cautious. Letting your line run before you, you wade along, holding on by one branch and another, fumbling with your feet along the jagged channel, changing hands to a bough on the left side, leaning on this rock, stepping over that stranded log. Ripping a generous hole in your skirt as you leave it, you come to the edge of the petty fall. You step down, thinking only how to keep your balance, and not at all of the probable depth of the water, till you splash and plunge down into a basin waist deep. The first sensations of a man up to his vest pockets in water are peculiarly foolish, and his first laugh rather faint. He is afterward a little ashamed of the alacrity with which he scrambles for the bank. A step or two brings him to a sand bank. But while *you* are in a scrape at one end of your line, a trout has got into a worse one at the other. A little flurried with surprise at both experiences, you come near losing him in the injudicious haste with which you overhaul him.—*Beecher's "Star Papers."*

For the New England Farmer.

ROOM FOR IMPROVEMENT.

Mr. Editor:—I have been a reader of your paper some three or four years, and, of all the agricultural publications with which I am acquainted, I give it the preference. Its columns are filled with matter interesting to every farmer. Through it we learn the results of experiments, and practices of farmers in various parts of the State, country and world.

We have a seminary of learning in our town, that manufactures school-teachers by the dozen, but where are our agricultural writers? We have farmers among us who are growing rich by raising hay, milk and cabbages, and others growing poor by raising weeds, lice and caterpillars. Will not both classes give some of their experience? We have no farmers' club, but political clubs are well attended. Our farmers annually buy several hundreds of bushels of corn, yet some raise corn to sell.

If a person, in passing through our town by railroad, were looking for the beautiful in natural scenery, and highly cultivated farms, he would soon wish to take up a morning paper and have the car-wheels "fly swifter round;" and if he should have occasion to alight at the stopping places on the road, at one he will find himself on the skirts of a barren plain, with here and there a few poor old cows, vainly trying to satisfy the cravings of hunger by clipping its scanty growth of grass; at another, the cars will leave him upon the edge of a swamp, with not an acre of cultivated land, or scarcely a human habitation in sight; but his ears may be saluted with the hooting of owls and the melody of bull-frogs. Yet there are pleasant locations, fertile farms, handsome residences and beautiful orchards, away over the tree-tops in the distance. R.

Seekonk, Mass., March, 1855.

For the New England Farmer.

INTERNAL STRUCTURE OF THE EARTH.

Mr. Editor:—In the article selected from the *Scientific American*, in your last on this subject, the author did not, as I could discover, undertake to account at all, according to his theory, for the phenomena of volcanoes, hot springs, &c., taking into *especial* regard such as the geysers of Iceland, and water volcano in Central America. I may add here that the discussion of this subject receives additional interest at this time, from the fact that Vesuvius, that once overwhelmed two "cities of the plain," and in the admiration of the terrific scenes attending one of its most remarkable eruptions, so graphically described by Pliny the younger, the elder lost his life, is now again, for the fiftieth time since the Christian era, belching forth its floods of molten elements and deluging the country with desolation. R. H. H.

Cabbages.—The value of cabbages for breeding, especially dairy stock, is probably greater than is usually supposed. The field cultivation of this plant is much on the increase among the farmers of Great Britain. The amount of nutriment matter which is capable of being raised

from an acre of land under cabbage is, comparatively with most other crops, very large, and with an extended knowledge of this fact, the cultivation of it will be probably much extended. The land requires to be rich, deep, and somewhat moist. The rows should be at least 30 inches apart, and the plants not less than 24 or 26 inches. The two best varieties for field cultivation are the Drumhead and the York.

HAY AND HAY-MAKING.

A seasonable subject, truly, but one upon which we can hope to say little that will be new to all our readers. But there are some things which need to be repeated, as the season for attention to the subject returns, so we recall some facts and suggestions on Hay and Hay-making. In what stage of its growth grass should be cut, and how it should be cured, are questions of considerable importance—but questions which are not authoritatively decided. We will state some facts relative to both subjects—drawn from chemistry and analogy—but bearing more particularly in favor of early cutting and shade curing, which are thought by many of our most intelligent farmers to secure the greatest nutritive value of the hay.

Chemistry shows us that all plants contain the largest amount of matter soluble in water at the period of flowering, and that the sugar and gluten of the grass, and a few other soluble ingredients, constitute its chief value as food for animals. These rapidly diminish as the seed forms, changing into insoluble woody fibre, and the hay, which should, as far as may be, resemble grass in its most perfect state, is worth much less if not made until after that period. There are but few exceptions to this rule; among these are the Kentucky blue grass, the June grass and some others, which furnish but a light amount of stem and are most valuable for their leaves. They continue growing through the summer, and hence may stand far past the flowering age beneficially.

Those who advise cutting hay when the seed is fully formed, bring forward as an argument in favor of the practice, the fact that hay made from ripe grass yields the greatest amount of extract when boiled, and must therefore contain most nutriment, but it is now shown that the boiling very imperfectly imitates the process of digestion, and both analysis, and experiment with the living animal, confirm the fact that the best hay is that made from grass cut and properly cured when nearest the point of blossoming.

The process of curing which shall most perfectly retain the nutritive properties present in the plant, is the best process. In drying herbs for medicinal and culinary uses, the experience of many centuries teaches, that drying in the shade is the only way to secure, to its fullest extent, the desired object. In making hay this cannot be entirely accomplished, but the plan which follows it most closely, that of curing in the swath and cock, is a good and safe one—advantageous also, as requiring less exposure to injury from rain than any other.

Clover hay and coarse herd's grass especially, need to be cured in this way, as when dry, many leaves and blossoms drop off and are lost by the handling necessary to gather and secure them. When mowed, let the grass get fairly wilted and the moisture dried off while in the swath, with perhaps, a single thorough shaking up and spreading, and then be put into cocks, and it may be secured with very little loss. The partial fermentation or "sweating" which it undergoes causes but slight change in its constituent parts—save that it separates the water therefrom,—and after standing thus twenty-four hours, it needs but little after-tending to prepare it for the mow or stacks, and has far less of that harsh or strawy tendency which it would possess if cured in a different manner. Care should be exercised in curing in this way, not to put up the hay before it is fully wilted, and that the cocks be small and well constructed, so that the "sweating" process may not be carried to excess, and induce so great a fermentation as to decompose the sugar of the hay—changing it to alcohol and carbonic acid.

The weather has a great influence on the real value of the hay crop, but that is a matter beyond our control. If one has hay down and the weather proves changeable, with frequent showers, the less the hay is stirred the better, for it will retain its value while lying wet in the swath, much longer than if disturbed with repeated dryings and wettings. Nothing so injures hay as washing by rains, and this, if many times repeated, will totally destroy its value.

We might add further practical directions in regard to haying, but our present article is about as long as those interested will care to read, at this season. Beside, haying will not commence under a fortnight!—*Rural New-Yorker.*

BUTTER MAKING.

Not one pound in five of the butter sold in our cities under the name of "Goshen," &c., and very little "country butter," is fit for human use. Butter makers should remember these few short rules:

The newer and sweeter the cream, the sweeter and higher flavored will be the butter.

The air must be fresh and pure in the room or cellar where the milk is kept.

The cream should not remain on the milk over thirty-six hours.

Keep the cream in tin pails or stone pots, into which put a spoonful of salt at the beginning, then stir the cream lightly each morning and evening; this will keep the cream from mouldering or souring.

Churn as often as once a week, and as much oftener as circumstances will permit. Upon churning, add the cream upon all the milk in the dairy.

Use nearly an ounce of salt to a pound of butter.

Work the butter over twice, to free it from the buttermilk and brine, before lumping and packing.

Be certain that it is entirely free from every particle of buttermilk or coagulated milk, and it will keep sweet forever. In Scotland, a syphon is sometimes used to separate the milk from the cream, instead of skimming the pans.—*Exchange.*

For the New England Farmer.

ITEMS FROM IOWA, &c.

Mr. Editor:—My last items to you were of January 21st, and up to that date we had weather as remarkable for mildness, as it has been remarkable for its severity, the remainder of the winter. Our spring is about three weeks later than that of the previous year. We had fragments of snow in April. We have had two copious rains this spring, and the ground is tolerably well saturated.

Winter wheat never looked more promising here, and from reports, I judge the crop is unusually promising throughout the western States. Probably there has been an unusual quantity of spring wheat sown. Judging from present indications, there is every hope that there will be an abundance of food at lower prices than the present.

There is now a fair promise of a good crop of fruit, of every description. Even peaches, in some locations, promise a feast. Since the above was written, we have had two severe frosts, on the 8th and 9th of May, which, perhaps, have taken a few facts from my calculations on fruit. However, of that I may report hereafter.

Corn is one of our staple crops—in fact, it is the reliable crop, failing last year as an exception. The mode of cultivation of corn here may be new to some of your new subscribers. Plowing is usually done with horses—a good span plowing about two acres per day. It is then furrowed off with a small plow, about three and a half to four feet between furrows, then crossed with furrows at right angles. The corn is dropped at the crossings, and usually covered with a hoe, though frequently with a horse and shovel plow, or some other similar implement. When the corn becomes large enough to be worked, it is plowed both ways of the rows until about the first of July, then the corn is left to its own care, and wheat harvest demands the attention of "all hands." Seldom is a hoe in a corn-field after planting. A man and a horse can usually "tend" from twenty to thirty acres of corn, usually yielding from forty to sixty bushels per acre. About September, corn enough for fodder for stock is cut and put in shock; the remainder remains in the field and is "shucked" at leisure, from November to January. A two horse wagon passes along the rows, and the corn, as it is "shucked," is thrown into the wagon and conveyed to the corn-crib, which is frequently nothing but a rail-pen. Sod ground is seldom planted to corn. The same ground is frequently planted year after year in corn, without manuring. Let no one suppose that there are no weeds in the virgin soil. It is full of them—more rampant than in New England, and would destroy any corn crop if not subdued. Better culture would raise more corn, but it is a question whether it would pay at past prices.

It would amuse a Yankee teamster to see a western man drive an ox team, sitting, usually, on the wagon, with a long lash and a cracker attached to a long pole, wielded with both hands, almost constantly lashing and cracking his team, accompanied by a generous expenditure of breath, and often trotting his unloaded team like stage horses. Oxen are presumed to be less deserving mercy than horses—perhaps because they have a greater capacity to endure beating, thus graduating mercy, after all.

Your May number has something to say about climates, &c., and I have always found, in all places, that the thrifty had a plenty to do at all seasons; if not hauling and cutting wood, pitching hay, &c. The different climates have different products that demand attention in winter—preparing tobacco for market, ginning cotton, hulling rice, making sugar and molasses, and preparing the ground for the next crop. This, I presume, was calculated for a busy world, and a little experience suggests that the comforts of climate are more nearly equalized than is generally supposed. Southern winters are generally delightful; but even there, where there is no piercing cold, the system is sometimes chilled, shivering and torpid. If the South has delightful winters, the North has delightful summers.

In all warm climates, noxious insects have a longer season of multiplication, and, without experience, you can hardly appreciate the absence of musquetoes, fleas, gauze-winged fleas, &c., &c. A feverish patient never longed for a cooling draught more than I have, in a warm climate, for one summer night's rest, such as I have had in New England climate, such as you all generally have—refreshing sleep.

It is said that Zeuxis, the celebrated painter of Athens, when required to paint a model of beauty, chose six of the handsomest ladies of the city, that he might select the peculiar beauty of each to combine in one Helen. If we could select the desired portions of the year of a half a dozen climates to make one, even then we would probably croak a little, by dint of habit. And if one climate alone possessed all the advantages, that alone would be inhabited, and we would quarrel for elbow room.

"A Reader," who reviewed the *Monthly* for March, expressed a desire for a few more items from "Nemo," before "the shakes should carry him from gay to grave, and never bring him back again." "The shakes!" What terror in that word! "Distance lends" magnitude to the word. When you are right among "the shakes," they are a mere trifle—a bad dream—nothing after it is over. It is only freezing a little too cold, and thawing a little too hot—a little periodic variety, that can be stopped when you are tired of it. From ten to twenty grains of quinine, taken after the dream is past, is sure death on the shakes, only they are a *leetle* hydra-like. I ought to know, "I'm experienced." I've tried it on myself a *hundred* times, and it never failed. I keep quinine "constantly on hand," and begin to like it. No Maine law against my bitters.

Burlington, Iowa, May 25, 1855. Nemo.

HOEING IN DRY WEATHER.

Experience has fully established the fact that corn, and other crops, are essentially benefited by hoeing in dry weather, but the reason why, or the manner how it is done, is not so generally understood. That moisture is formed by stirring the dry particles of earth and changing their relative positions, is generally admitted.

Water is composed of oxygen and nitrogen. These substances are also contained in different proportions, in the earth and atmosphere, and

are, to some extent, formed by the action of different particles of earthy matter upon each other, when brought into contact, as done by hoeing. Water acts as a solvent of other substances, and holds them in solution so that they can be taken up by the roots, and made to nourish the growing plant. This is the reason why it is best to sow or plant seeds as soon as possible after the land has been plowed or harrowed. The different particles of matter coming together, form new relations and produce a chemical action, during which heat is evolved, and oxygen and hydrogen are generated and caused to unite, and form water, which, with other substances, act upon the seeds and produces germination, and gives to the new-born plant a vigorous start into existence. After the soil has remained quiet for some time, these substances having exhausted their energy by neutralizing the powers of each other, the plant having absorbed all the elements of nutrition within reach of its roots, it growth becomes retarded, and can only be restored by renewing the chemical action. This can be done by applying some compost manure, or by hoeing or stirring the earth, so as to bring different particles into contact with each other and forming new combinations, and consequently, thus producing a further supply of nutritious matter. Corn, that is hoed every two or three weeks, will come to maturity sooner, produce more, and be better filled on the cob, than it will when treated in the usual way. We would recommend to our farmers to select two or three rows in the field, and hoe it regularly once in two or three weeks, and in the fall inform us of the results of their experiments.—*Anon.*

For the New England Farmer.

TRIAL OF MOWING MACHINES.

Gentlemen: — Having seen an article in your paper, copied from the *Telegraph*, giving an account of a trial of mowing machines at Dedham, and which report seems to convey the idea that Manny's machine was generally considered the best, and learning from an eye-witness that the grass was *very light*, I write to give my brother-farmers the result of my experiments with it.

My first trial was in clover, a portion of which was lodged, with much old stubble at the bottom; the machine became clogged in going a few rods. It was then cleared and tried again and again, until I became satisfied that it would not work in such grass.

I then informed the agent for selling, of whom I had previously purchased it, and requested him to inform the company that the machine would not work in such grass. I then took of the agent for selling the Ketchum machine, one of his on trial; tried it the same day, in the same grass, and it worked to my entire satisfaction—it cut the grass close and smooth. After this, I was informed by the agent for selling the Manny machine that by attaching the reel to the machine, it would work well, and to my satisfaction.

The mayor, some of the aldermen, and several practical farmers, had an invitation, and were present, to witness the second trial of the two machines, which was in an old meadow, that cut about two tons on an average per acre.

The Manny machine was first tried without the reel, and it became clogged in going a few feet; it was cleared and tried again and again, as at first, but with no better success. The Ketchum machine was then tried and worked well, giving decided satisfaction to those present. One of Manny's machines was then tried, with the reel attached, but with no better success. It was then frankly acknowledged by the agent that the machine would not work in such grass in its present construction. The Ketchum machine was purchased by me at this last trial for the use of the alms-house farm, in this city. The last trial, above named, was on the 29th of June, last past. Earl C. Briggs, *Keeper of Alms-House.*

New Bedford, July 5, 1855.

For the New England Farmer.

DOES THE CURCULIO PUNCTURE THE APPLE?

It certainly does. I have repeatedly caught it in the very act, as for several years I have been watching with much anxiety the operations of this insect upon my own fruit, consisting of some scattered old trees, a few in the garden, and an orchard set out in 1850. And I have often expressed my fears that unless there is some check upon the operations of the curculio, it will soon be as difficult in my section to raise either apples or peaches as it now is to raise plums. For the last six years, nearly every apple of the few gathered from my scattered trees has been more or less deformed by the punctures of the curculio. Even the fruit of an unusually sour and crabbed "Native" has been as badly used as the more valuable varieties. Indeed, I noticed last year,—what I thought a little strange,—that the fair-skinned Porter grafted into an old tree with several other varieties, was much less hacked than the other kinds. My young trees have borne a very little fruit for three years past, but I saw nothing of the curculio among them until last year, and then in but two or three trees. This year I believe their marks are to be seen on every tree that has set any fruit. I have spent considerable time in jarring the scamps upon a sheet, as recommended in case of plums, and have had the satisfaction of grinding scores of them between the thumb and finger.

The statement of Mr. Wyman agrees perfectly with my observation of the effects of this insect upon the apple. But as it "stings" my peaches as well as apples, I should not expect any great advantage from cutting down the apple trees and setting out peach trees in their place, as he proposes, now that the curculio has possession of the ground.

As to remedies or preventives, I have not a word of encouragement, except by reference to the early promise that man was to have dominion "over every creeping thing that creepeth upon the earth," and to a faint hope that "man" may yet perceive that his "mission" is rather to subdue the earth than his fellows.

A neighbor who succeeds in raising large crops of plums informs me that he has tried all such prescriptions for the soil, as salt, lime, ashes, &c., and found them utterly inefficacious for the destruction of the curculio, and that he now depends mainly upon his thumb and fingers. Last

year I cooped a hen and brood of chickens under an apple tree in the garden; but I jarred upon the sheet as many curculios from that tree, as from the others without the chickens. S. F.

Winchester, July, 1855.

For the New England Farmer.

CITY AND COUNTRY LIFE.

Mr. Editor:—Real life in city or country can only be measured by actual residence and positive experience. While a city life presents its daily changing phases, its Babel tongues, its confused, fierce commotion—country life leads on to quiet, sweetened with the genial breeze, far away from the great cess-pools of vice, the mind rallies with new hope and contentment in its allotted home.

Why this itching for city life? Is it for riches, so easily gained, and so suddenly lost? Is it the millinery and fancy trappings of life that so fascinate us? Is it to witness beggars by scores who are sure to make their professional *calls* about breakfast time? Is it to be jostled by the multitude, the thunder of carriages, dust, smoke and confusion, that we so love? Is it to meet with better, or more chaste society? Is it to improve and elevate our morals? Is it because we are beset with less danger? Is it the safer playhouse for our children? Is it that less of thieves, burglars, lewd and lascivious nature, shall meet us at every corner? Where will such like questions end?

In this mass of all nations, in this multitude, *with* and *without* occupations, we are overwhelmed with the one idea—"how do they all live?"

But not to penetrate city life any longer, let us look through the bars and see what there is inviting in country life.

The larch tree in the forest—the sweet bloom of the orchard, the clover-head that sweetens the air, the bird that sings us to sleep at evening, and awakens us in the grey of the morning, the "babbling brook," the waving wheat-field, the farmer's new hay, the vernal breeze with its "balm of a thousand flowers," how they enchant the uncaged bird when thrown from the meshes of city confinement.

There, we meet no "*fashionable*" silken trails, sweeping clean the side-ways, to be trodden upon by dirty boots, (a daily occurrence in Broadway.)

There, the little girls wend their way to school in comely attire, perchance to worry a butterfly, or disturb the "Quaker Grasshopper" in his dusty nook. What rural, charming, child-like sports, compared with her little ragged sister, whose city occupation in rainy days is to stand with bare, beef-red feet, ankle deep in cold mud, sweeping the cross-walks for gentlemen's *clean boots*, and as they pass she says, reaching out her hand with an *upward, imploring look*, "please give me a penny, sir," and too often, is the cold, heartless response—"get out of my way." Are there no tears for this ragged child?

While the merchant *madly* or even *cautiously* pursues his work of gain, 95 per cent. of his number fail of success. Not so with the farmer,—he rarely fails; inspired with the breeze that waves his corn and freshens his soul with hope, satisfied with *moderate* gains, he dignifies the noble destiny of man. His "Wall Street" is the field of noble toil and honest gain. His is not the interest of usury, not an insidious speculating scheme to entrap his neighbors, and bring their children to want. No "fancy stocks" are jobbed at his farm. He deals in a *substance*, wrought out by the plow and the sickle. His "broker's office" is the leanto and the sheepfold, where the *fleece* is nurtured and matured for honest humanity, not to impoverish and starve his neighbor by *fleecing* his pockets.

In stating the case, it is without desire of exaggeration, or to overdraw the picture. Whatever deductions may be made, let the candid inquirer decide what is the difference between city and country life. P.

Brooklyn, L. I., June 16.

FARMERS' MEETING AT HILLSBOROUGH BRIDGE.

The President being absent, Col. Hiram Monroe, of Hillsborough, one of the Vice Presidents, took the chair. The meeting was organized by choosing Brooks Shattuck, of Bedford, Secretary pro tem.

The Chairman announced the subject for discussion to be, *The Winter Management of Stock*, and having been appointed to open the discussion, he proceeded to remark that he considered the rearing and management of Stock of great importance to the farmers of the county. The kind of stock kept, the care, food and manner of feeding, should claim his attention; thought cattle should be fed at regular intervals—considered that roots were of great benefit to cattle, fed in connection with dry hay; that roots however should be fed regularly through the feeding season; had observed that when he had fed them a part of the winter, and then discontinued them, cattle seemed to derive little good from them; he would proportion the daily quantity so that it should be equal through the feeding season.

He had experimented on two heifers, giving to one good hay, and to the other a few carrots in connection with the hay. In the spring the one that had the carrots had made more flesh and was much the best through the next season.

Mr. Monroe usually lets his cattle out at 9 or 10 o'clock A. M., and ties up again at 2—feeds all his fodder in the barn except some that is very poor.

Mr. Charles Gates, of Antrim, said that in order to get a good animal, the foundation must be laid the first year; he had been successful in rearing calves without milk, by giving one-third barley to two-thirds oatmeal made into a porridge; calves fed upon this had made as much growth as upon milk.

Mr. Gates thought much benefit was derived from cutting the fodder fed to cattle; he had kept a horse through the winter on oat straw and hay cut and well mixed together, the nett cost of which did not exceed ten dollars, exclusive of the labor of preparing the food, and of feeding it out.

We did not understand whether Mr. Gates added meal of any kind to his straw and hay; but conclude they get a dusting from the meal bag.

James Walker, Esq., of Bedford, remarked that he had paid much attention to the rearing

and crossing of stock, and like Mr. Gates, would lay the foundation for a good animal during the first year; this he would do by giving the lighter part of the milk, or that which remains after the milkmaid has taken a portion.

Mr. Walker expressed the opinion that the parsnip was much the best root to feed out to stock; that cattle should be tended regularly and treated kindly; that bedding down at night added to their comfort; he disliked to have his cattle remain out late in the afternoon.

Mr. Walker presented to the meeting a specimen of the parsnip that he raises; they were of mammoth size and length, and indicate that friend Walker has taken advantage of the quite recent discovery that we farmers have a farm under a farm.

B. F. Cutter, of Pelham, said that he had not paid much attention to the raising of stock; but from reading and observation, he was convinced that much improvement had been made in relation to the kind kept, to food and general treatment; thought kind treatment of much importance, and placed much stress on regular feeding. Some milkmen in his vicinity were in the habit of keeping their cows in the barn through the entire day, and thought that by so doing they obtained more milk than where their cows remained out a portion of the day.

Mr. Morris, of Hillsborough, remarked that although he was not a farmer, yet he had employed oxen and horses on heavy stone teams, and was satisfied that cattle would do more work and stand it better fed on cut feed, with meal added, than when fed on dry hay, with the meal given separately. He was acquainted in Caledonia County, Vermont, and had noticed there the cross of the Devon with the best native, as excellent milch cows; he had also noticed that farmers in the upper part of the State, were in the habit of letting their cattle (young?) remain in the yards during the night, having sheds for them to go under in stormy weather.

At this point in the discussion it was voted to adjourn until 2 o'clock.

On meeting after the adjournment the discussion was profitably continued until 3 o'clock, when the chairman introduced to the meeting B. F. Cutter, of Pelham, who gave a very instructive and practical address on Fruit Culture.

After the address, Mr. Wallace, of Bedford, suggested by way of inquiry, whether the grafting of different kinds of fruit near each other, or the grafting of good fruit near the common stock, did not cause a deterioration in the quality of the fruit. He inferred that this might be the case from the fact that the different kinds of the same species would mix through the blossom. All had no doubt observed this peculiarity in the mixture of different kinds of corn; the same was equally true in regard to every other vegetable, some will mix at greater distances than others. Botanists have given one instance at least where the pollen had been carried twenty-five miles. Though he doubted the accuracy of this statement, it was an unquestionable fact that different kinds of vegetables of the same species or genus would mix. Mr. Wallace stated a fact that came under his own observation. Two years ago last spring, he planted some summer squash seeds which came up and flourished, producing abundantly; near to them came up accidentally a pumpkin which likewise bore well; he saved some of the squash seeds, and planted them a year ago last spring, they came up in appearance summer squashes; some came up squashes and some bore a fruit resembling in part a squash, about half as large as a pumpkin. He planted the seed from these last spring, and the product was diminutive in size and poor in quality. Hence he contended that different kinds of vegetables of the same species, producing fruit from the blossom should not be planted near each other, especially if intended for seed, lest the product should become worse instead of better.

Remarks were made by Messrs. Prichard, of Deering, Morse, of Francestown, and Shattuck of Bedford.

On motion the thanks of the Society were presented to Mr. Cutter for his address, and a copy requested for the press.

BROOKS SHATTUCK, *Sec. pro tem.*

For the New England Farmer.

CUTTING OF GRASS.

MR. EDITOR:—I this morning heard a conversation between two of my neighbors, practical, thinking men, a brief sketch of which I will endeavor to give; perhaps it may induce others to think on the subject. Says A to B, "When shall you commence cutting your grass?" B replies, "Next week, I think; my grass has thickened up much of late, and now promises quite a fair crop, of more than a ton to the acre." Says A, "How much have you?" B replies, "Something over fifty acres of upland mowing, besides runs and meadows." Says A, "Why don't you get one of the *mowing machines*, now so much spoken of, by means of which more than half the expense of cutting can be saved?" Says B, "I have been thinking of this, but am not fully satisfied that it would be to me *any saving* worthy of notice. In the first place, I shall have to expend between three and four hundred dollars to obtain a machine, and a team to work it, as I have but one horse, the wear and tear of which, with the interest on the cost, cannot be estimated less than *fifty dollars* a year—a sum about equal to one-half the whole expense of gathering in my crop. I have generally found, when I have a fair gang of hands, that I can get into my barn as many tons of hay in the month of July, as they perform days' labor, so that it does not cost me more than two dollars a ton to get my hay. Then there is so much uncertainty about the working of these machines, and the kind of machine to be preferred, that I have concluded to wait until the committees, who are investigating the matter, are ready to report. How much more will then be known that can be relied on, will depend something upon the practical knowledge of the committee themselves. I do not think much of the opinions of gentlemen, clad in kid gloves, of the value of *farm implements*. As to all the labors of the farm, I much prefer the conclusions of those who have been accustomed to labor with their own hands."

July 4, 1855.

☞ Keep your implements always in order. Remember the proverb, "a stitch in time saves nine."

For the New England Farmer.

REMARKS ON THE CURCULIO OR PLUM WEEVIL.

BY S. P. FOWLER.

I had thought it unnecessary to add anything more to what has been already published in the *Farmer*, in regard to the habits of the curculio, but as you have requested some one to reply to the inquiry of one of your correspondents in your paper of June 30th, I will endeavor to comply with your request, and offer some general remarks upon the plum weevil or curculio.

The question put by your correspondent is this—"Does the curculio puncture the apple?" In reply, I would say, they not only puncture the plum, but the apple, pear, peach cherry, nectarine and apricot. I have also seen some of our native fruits under cultivation marked by the curculio, particularly the June-berry (Amelanchier Canadensis.) But it seems to prefer the plum to any other fruit in which to lay its eggs. I have also known, in a few instances, the insect to deposit its egg in the tender terminal shoots of the plum tree, the same having been before noticed by Kollar, in unfruitful seasons, in his treatise, when speaking of the copper-colored plum weevils of Europe. Doct. Harris, the distinguished entomologist, in view of this fact, has truly and beautifully observed, that "we see the care of the Creator for some of the least of His creatures, which he has wisely provided with variable instincts, enabling them to accommodate themselves to the difficulties of the situation in which they may happen to be placed, and thus, even in unfruitful seasons, to provide for a succession of their kind."

The curculio is sometimes in the habit of depositing its eggs in those warty excrescences, incident to plum trees, which are probably caused by disease in the sap or its vessels. This has led some persons to suppose that the black knots are caused by this insect, which I think is a mistake. This habit of the curculio or plum weevil in not confining its operations to the plum, seems to have been overlooked or not understood by many cultivators when they recommend the use of lime, ashes, snuff or other substances in dusting the plum tree and its fruit. All the effect such a practice would have, would be to drive them from his plum trees to other kinds of fruit trees in the neighborhood. Such a mode of procedure would probably give the timid curculio a fright, perhaps a dusty jacket, and cause him to change his quarters, but would by no means lessen his depredations.

Now I would say to the cultivator, your warfare upon noxious insects should be more sanguinary; don't spend your time in seeking to drive them away when committing their depredations, but seek some method to destroy them. *Kill them, kill them*, should be your constant aim and motto, at every period of their transformations. My method in destroying the curculio has been, to pick up under the trees all the wormy plums as they fall, and throw them into a mill-pond. Other means can be used to destroy the larva in the fruit, such as steaming them, or putting them into a barrel partly filled with water. If this method of gathering up the wormy fruit and destroying the grub be frequently practised, during the months of June and July, it will greatly lessen the ravages of the curculio. The nimble fingers of children will aid us here, in accomplishing this work; I would say in this connection, I use the same means to rid my grounds of that other pest to fruit-growers, the apple-worm.

The number of cherries punctured by the curculio is greater than I had supposed. Upon examination to-day, of a May Duke cherry tree, I discovered one maggot in every fifteen of the ripe fruit to be found. Cherries ripening early never fall like other kinds of fruit when punctured, and there is no visible appearance of the worm. And as few persons make two bites to a cherry, and are unconscious of the grub within the fruit, they, the grubs, must have a hard and perilous time of it, and probably but few, if any, escape their fate, and are literally devoured alive, meeting an early death, and thus fail to pass through their transformation.

In regard to the black knots on plum trees, my method for their removal is simply to cut them from the branches, when they first appear, and burn or otherwise destroy them; and should the tree be much affected by these excrescences, I cut it down. I also find some kinds of plum trees are less liable to be affected by this disease than others, and such should be sought for and cultivated. The Canada plum, (Prunus Americana) is a hardy native, and less liable to the attacks of insects or the black knots, which renders it desirable for stocks for budding or engrafting upon. The tree thus becomes a dwarf in its habits, and is the more easily protected from the curculio, and reached when applying the knife to the warts or knots.

S. P. FOWLER.

Danvers-port, July 4, 1855.

For the New England Farmer.

MOWING MACHINES.

MR. EDITOR:—As I was passing the fine cultivated grounds of Gen. S. on Monday afternoon, I heard the clatter of a *mower*, and on examintion found that his men had just commenced cutting his grass, with one of Ketchum's machines, the same that he used last season. It was drawn by a large pair of active, well-trained oxen. The work was completely done; as perfectly as it could have been with scythes in the best experienced hands. The field contained four acres, and the crop averaged about one ton to the acre; there were some patches of the field cultivated with other crops, and a few trees on parts of it, consequently the services of two men, with scythes, were needed to clear away at the ends, and to pick up the fragments. The work went successfully on, and was completed before night. The men sweat profusely, and so did the cattle. The best way you can fix it, mowing is hard work.

On a field near by, one of Russell's one-horse machines was put in operation the same day. It was new, and operated so little to the satisfaction of the proprietor, that he made up his mind to return it. Another gentleman, who successfully operated one of Ketchum's machines the last season, put it in motion the same day,—but had not proceeded far before it gave out by breaking two of the cogs in the small wheel, rendering city repairs necessary. Thus endeth the first lesson of

mowing by machinery in the *natural way*. We have seen accounts of holiday experiments at West Chester, at Dedham, at Hadley, at Springfield, &c.,—all of which are well enough in their place—but what we want to know is, are the machines so constructed, that *real farmers* can find it for their advantage to purchase them and do the work upon their farms? That they can be made so as to cut and spread the grass perfectly where there are no obstacles in the way, has often been demonstrated, but what kind of machine will do this best, remains to be proved. We hope the experiment now going on, will ere long do away with all doubts in the matter. One of the greatest difficultics in the way of just determination is, the want of good fidelity in the structure of machines. When the *cheapening process* begins to be introduced, then the *reliable character* correspondingly disappears. *.

July 11, 1855.

For the New England Farmer.

HIGHWAY WORK.

In Concord, Mass., the highway tax is paid to the collector, as are other taxes. Formerly it was the custom to have the taxes worked out, or *stood* out, as some said, and many did.

By the present system, the person who has charge of the roads in a certain district may commence his repairs on the highways as soon as the frost is out of the ground, and cart his gravel so that it will settle immediately, and make a fine road at once. When A, B, and C, had to be called upon, the *book* must be first prepared, so that the surveyor could tell what taxes were due. This generally came along in midsummer, when the roads were as dry as meal, and the less done on them the better.

It seems as if all could see the great economy of the present arrangement. The intelligent surveyor hires his two good men, takes team enough and the right tools, and works when and where it is needed. Before, we used to have at times a great party out. The roads would be plowed up at the sides, and then men strung along to shovel the rich loam or sand into the ruts. The traveller dreaded to come upon such a piece of mended (!) ways. It was a sore spot for a long time.

It was a fortunate year for our district when my neighbor Goodman was surveyor. We had the roads in trim that year, let me tell you. He commenced in March. He opened the watercourses, and drained the deep ruts of the floods of standing water which helped the wheels to wear down continually deeper. He then carted coarse gravel, and filled the ruts with shovels from tilted carts with great dispatch. The gravel stuck in the wet ruts, and soon became firm as the everlasting hills.

There is gravel enough in our district for all the roads in the United States. It is a little harder filling it than the yellow dirt beside the road, but Goodman said nothing but the best of gravel should he spread on the road, if he went half a mile for it. Nobody ever before discovered that several high ridges in the very roads themselves were excellent gravel, and could be removed with a two-fold advantage.

Mr. Brown, nothing disturbs my spine and temper more than to go jolting over loose cobblestones in the road. They ought to be kept raked out. Public sentiment should demand it. I remember that dry summer how vigilantly Goodman went over the roads again and again, with a stout garden rake, and cleared out the loose stones. It was a small job, and brought great comfort to all. I thank him here for his consideration.

Is it not safe to judge of the intelligence and prosperity of a community by the roads they travel? I think so, and go in for elevating the standard in our good town. W. D. B.

Concord, N. H., July, 1855.

WOOD LAND.

Fifteen acres of wood and timber land will furnish a farmer his ordinary timber and wood for two fires. *Ten* cords of wood suffice for any man to keep two fires the year round, provided he has tight rooms and good stoves. We have kept two fires, since the first of November, in two large rooms, and have not yet burned three cords of wood, and we can assure you that we like a good comfortable fire. The farmer should commence on one side of his lot, and cut the wood clean as he goes. In this manner the young shoots come up alike, as they receive the sun alike. Now say there are thirty cords of wood to an acre; if he cuts ten cords of wood a year, it will take him three years to cut off the wood of a single acre, and it will take him forty-five years to cut the wood off from his lot of fifteen acres. At the end of forty-five years, he may go back to the first acre he cut, and cut thirty cords to the acre. On our ordinary upland, wood will grow to thirty cords to the acre in thirty years.

Thirty-four years since, we recollect of assisting in clearing fourteen acres of wood land, and getting the same into winter rye. After the crop of winter rye was taken, it was pastured for a year or two, and then suffered to grow up. The growth was white oak, yellow oak, red oak, chestnut and maple. Seven years since, that *same rye field* was cut over, and there was not a single acre of it but produced thirty cords to the acre! And this in twenty-seven years!—*Anonymous.*

For the New England Farmer

TO OWNERS OF OAK AND PINE SHRUBS.

Editors of the Farmer:—One word of suggestion, if you please, to the owners of the small patches of oak, walnut and pine shrubs, which are seen so frequently on the borders of Massachusetts villages, on the plains, and the declivities of the hills. These objects, which now strike the eye so disagreeably, however small and uncouth, may be made the most attractive feature of the scenery.

In proof of this, let me give you my own experience. I owned, four years since, within a short distance from this village, about six acres of the most unsightly land in the neighborhood, a mass of rocks and stumps, shrub oaks, shrub pines and shrub walnuts. By trimming away in the beginning all the shrubs except one upright shoot, and digging all the old stumps away, I have a young grove to beautify rather than de-

face the surrounding lands, and to afford a pleasant retreat for an hour from dust and fatigue. I have seen larger and smaller patches of the same description of land, and I longed to say to the owners of them that they are thoughtlessly depriving themselves and their neighbors of one of the richest enjoyments of life, and the country of its least expensive and most desirable ornament.

No one will require to be shown the comparative cheapness or attractiveness of such a grove over one where the trees are transplanted; and thanks to your paper, and such as yours, no one will ask, Of what use is the fitting up of retreats for poets or moon-struck gazers at bewitching nature, to the hardy tillers of a soil which yields a meagre return, when it receives every moment of time and every effort of skill? Objections of this kind do not now require to be answered, if ever made, and attention is directed, by all classes, to that which beautifies and adorns, as well as to that which plucks from nature the means of subsistence.

Yours truly, OLIVER N. BACON.
Natick, July 7, 1855.

For the New England Farmer.

"SEVENTEEN YEAR LOCUSTS."

MR. EDITOR:—In the *Providence Journal*, of the fore part of last month, is an article with the above caption, in which the writer doubts that there are any "seventeen year locusts." The *Journal* says: "The lovers of the marvellous may not thank us for destroying a venerable illusion, but truth compels us to state that, according to the best etymological authority, no such peculiar insect as the "seventeen year locust" exists. Locusts are found in more or less abundance every year, in different parts of the country; but the idea that there is a variety or species, which appear at regular intervals of seventeen years, is unsustained by facts."

Now, Mr. Editor, will you allow me to state what "*facts*" in the case I happen to possess. I was born on the 18th of January, 1790, and in 1802 there appeared, in a certain wood-lot, about a mile and a half from where I then lived, and do now, what were called the *seventeen year locusts*. I heard it talked about, a year or two before they appeared, that the year 1802 was to be the *locust year*. Well, June came, and also, about the tenth of the month, the looked-for locusts, in great numbers. In the midst of their greatest display and profusion, we could plainly hear them sing, in a calm forenoon, although a mile and a half distant, in a straight line. I recollect going to see them, accompanied by my father, and carrying a basket and bringing home some two quarts of them; most of them we let go into the woods, near my father's house, and, in just seventeen years after, some few appeared in the said woods where we had let them go, none having been seen or heard there before, as I was informed.

In the woods first alluded to, where they appeared in 1802, they also appeared in 1819, just seventeen years after, but not quite so numerous as they were in the former year. They were, however, pretty numerous, and we could hear them sing the like distance that we did before. There were a very few the year before and the year after those dates, as though they made a *mistake* of one year in their calculation, but not one was seen in any other year.

In 1836, seventeen years after the last date, they were also seen in the same place, but they appeared less plenty, as though they were running out and becoming extinct. The last year of their appearing was in 1853, and, as I forgot to pay any attention to it in that year, I do not know whether they appeared or not. There was a piece of wood land in Easton, near Colonel Shepherd Leach's Iron Foundry, where they appeared in the above years.

The fact that these locusts appear in one part and another of the country, in years differing from the above dates, is no argument that they do appear oftener than seventeen years in those various places, as all accounts agree that they appear every seventeen years in those various places. It is my impression that this subject has received ample investigation by a person qualified for the task, and who, on the eve of publishing a book upon the subject, solicited information from all parts of the country on the subject. I have not seen the book, and have forgot the name of the author or his place of residence, but am inclined to think that he lived in Philadelphia. Can you inform me about such a book?

Most respectfully yours, ISAAC STEARNS.
Mansfield, Mass., July 4.

P. S.—Since writing the above, I have looked into the "Treatise on Insects," by T. W. HARRIS, M. D., published in 1842, by order of the Legislature of Massachusetts, and there, on page 178, find his description of this seventeen year locust, *Cicada Septemdecim*, to which the reader is referred. They were first described as appearing in Plymouth, in 1633. The tenth time of their appearing from that date, would bring it down to the year 1803; but it appears that Mr. Harris, in his book above alluded to, states that they appeared in Plymouth, Sandwich and Falmouth, in the year 1804, instead of 1803, if the exact period of seventeen years was allotted them. Mr. Harris says: "Circumstances may occasionally retard or accelerate their progress to maturity; but the usual interval is certainly seventeen years, according to the observations and testimony of many persons of undoubted veracity."

On page 181 of Mr. Harris' Treatise, it appears that they appeared in Sandwich in 1787, 1804, 1821, and, therefore, this present year, 1855, is locust year there. Have you, Mr. Editor, some correspondent in Sandwich who will give an account of this matter? Also, whether they did not appear in the year 1838? I. S.

REMARKS.—We have no knowledge of a work being in preparation on the subject discussed above. Will some of our Sandwich friends gratify us by giving a little attention to this article?

☞ If all the nourishment for plants came from the soil, the soil of newly cleared land would be no more fertile than old land—but drawing much of their nourishment from the atmosphere, and decomposition taking place on the soil, the plant not only returns all it gets from the soil, but also the fertilizing ammonia and carbon it receives from the atmosphere.

THE CAT BIRD.

It is altogether too common among our people to complain of the hardness and poverty of the soil, of the rigor of the climate, shortness of the spring and east winds. Another class, who are tarry-at-home travellers, and who sit slippered and cushioned in easy chairs, and read of Italian skies and tropical birds, declare that no brilliant sunsets adorn our western skies, and that we have no birds of beautiful plumage or of exquisite song. The Bob-o-link is but a vulgar grub-catcher, and the Baltimore Oriole, or Golden Robin, but an arrant cherry-stealer, and fit only to be shot by roving boys.

These remarks were suggested by observing a rare bird upon one of our cherry trees on the morning of the eighth of July. He was nearly

the size of the Golden Robin, bill robust, like the Buntings or Grosbeaks, wings jet black, and the breast and back a rich carmine. The color of the bill and shape of the tail we could not see sufficiently to describe.

On reference to Wilson's Ornithology, we are convinced that this beautiful bird is the *Scarlet Tanager*, and the first we have ever seen, though we are told by the neighbors that he is occasionally seen in the woods in this vicinity. Wilson says, "With the shy, unsocial, and suspicious habits of his gaudy fraternity, he takes up his abode in the deepest recess of the forest, where timidly flitting from observation, he darts from tree to tree like a flashing meteor. A gaudy sylph, conscious of his brilliancy and the exposure to which it subjects him, he seems to avoid remark, and is only solicitous to be with his humble mate, and hid from all besides. He therefore rarely approaches the habitations of men, unless, perhaps, the skirts of the orchard, where he sometimes, however, builds his nest, and takes a taste of the early and inviting, though forbidden cherries."

Seeing this beautiful and familiar bird, and speaking of singing birds, leads us very naturally to another of our accomplished singers, the lively and imitative Cat Bird, second only to the Mocking Bird himself. For the benefit of the grumblers, those to whom all is barren and unlovely in our climate and skies, forests and fields, we give Wilson's graphic and just account of the Cat Bird. The engraving is a capital illustration.

This quaint and familiar songster passes the winter in the Southern extremities of the United States and along the coast of Mexico, from whence, as early as February, they arrive in Georgia. About the middle of April they are just seen in Pennsylvania, and at length leisurely approach this part of New England, by the close of the first or beginning of the second week in May.

The Cat Bird often tunes his cheerful song before the break of day, hopping from bush to bush, with great agility, after his insect prey, while yet scarcely distinguishable amidst the dusky shadows of the dawn. The notes of different individuals vary considerably, so that sometimes his song, in sweetness and compass, is scarcely at all inferior to that of the Ferruginous Thrush. A quaintness, however, prevails in all his efforts, and his song is frequently made up of short and blended imitations of other birds, given, however, with great emphasis, melody, and variety of tone; and like the Nightingale, invading the hours of repose in the late twilight of a summer's evening.

When scarce another note is heard, but the hum of the drowsy beetle, his music attains its full effect, and often rises and falls with all the swell and studied cadence of finished harmony. During the heat of the day, or late in the morning, the variety of the song declines, or he pursues his employment in silence and retirement.

One of the most remarkable propensities of the Cat Bird, and to which it owes its name, is the unpleasant, loud, and grating cat-like mew, which it often utters, on being approached or offended. As the irritation increases, this note becomes more hoarse, reiterated and vehement; and sometimes this petulance and anger are carried so far, as to persecute every intruder who approaches the premises.

This common and abundant species begins to construct its nest some time in the month of May. The situation in which he delights to dwell, is commonly a dark thicket in the woods, or close

bush in some recluse part of the garden, at the distance of five to ten feet from the ground, according to the convenience of the situation. The materials are coarse but substantial; the external part is commonly made of small interlaced twigs, old grass, and dry leaves; to these succeed thin strips of bark often of the red cedar, somewhat agglutinated. The inside is lined and bedded with black root-fibres of ferns; other accidental materials sometimes make a fantastic part of the fabric. One has been known to carry away an edging of lace which was missed, and at length again recovered after the rearing of the brood, whose dainty bed it assisted to form. I have frequently found in the external coat of the nest the cast-off skins of *snakes*, more rarely bits of newspapers, wood shavings, strings and bass mat strips. The eggs are four or five, of a bright and deep emerald green, and without spots. The food of the Cat Bird is insects and worms, particularly beetles, and various garden fruits; feeding its young often on cherries and various kinds of berries. Sometimes they are observed to attack snakes when they approach the vicinity of their brood, and commonly succeed in driving off the enemy; when bitten, however, by the poisonous kinds, it it is probable as related, that they may act in such a manner as to appear laboring under the influence of fascination.

TOADS.

A correspondent of the *Cambridge Chronicle* puts in a plea for toads, and justifies his partiality by the following, which we extract from his communication:

"We have in our garden a small nursery of plum trees, which have been nearly destroyed by the canker worms. Last season we commenced shaking them off. One day we observed many toads about these trees, that on our approach became frightened and retreated in great haste to their retreats in the neighboring bushes. Soon finding that they were not pursued, they commenced hopping back, and caught with avidity each canker worm, as it descended on its tiny thread. We counted at one time thirty immediately round our feet. Day after day we fed them with their favorite food, and they became so tame as to follow us, watch our hand, and take the worm from our fingers."

This is new to us, though it may not be to many of our readers; but whatever taste the toad may have for canker worms, we are quite sure that it does a world of good in a garden, by destroying earth worms, of which it eats large numbers. We once tried to surfeit a toad with earth worms, but our patience was appeased, and we have always held that to destroy one of those disgusting looking reptiles was doing one's grounds a deal of injury. There is no charge brought against the toad but its disagreeable appearance, and it might well quote the old saw to those who despise it without seeking to learn its real value —looks are nothing, behavior is all.

THE GOOSE.

The goose, with the duck and swan, form a distinct family of the feathered aquatic tribes, (*Anatidæ*,) and is distinguished by web feet and a flat bill. The domestic goose is derived from the native wild goose, which still frequents in vast numbers the more solitary inland lakes and streams of the American continent, and which is known to ornithologists and naturalists by the appellation of the fen or stubble goose. In its state of domestication it still retains its aquatic character and habits, plunging eagerly into water, and, when permitted, living mostly on its surface. In favorable localities, where there are marshes or fens abounding in pools, the rearing of geese is very profitable, as they will in such situations obtain their own living.

The goose is remarkably hardy, subject to few diseases, and lives to a great age. It has been ascertained that the female goose, if well tended, will generally lay from seventy-five to one hundred eggs yearly, sometimes one hundred and twenty-five; but this depends very much upon the care and attention bestowed upon them. These eggs, if set under hens of large size, capable of covering five or six eggs each, nearly the whole number, may, with the assistance of the goose, be hatched. The best feed for goslings during the four or five days immediately after hatching, is barley or oat meal mixed with milk. Water and a very little sweetening, may be used as a substitute, when milk cannot be obtained, or when from its scarcity it is too expensive. In about one week after their enlargement from the eggs they will commence growing; they should then be permitted to go out, but not till the day has become somewhat advanced, and should be taken up before sunset. In fattening geese, Indian corn meal, and chopped vegetables, such as potatoes, beets, (boiled) cabbages and turnips, are generally given. Charcoal, in a pulverized state, is also excellent for fattening, and, in some instances, these fowls have been fed exclusively with it for weeks, and are said to have taken on fat more rapidly than when fed on any other description of food. Its value for this purpose was first discovered accidentally; a family in New York, having left the city on a protracted absence of several weeks, without thinking of several geese which had been incarcerated for some purpose in a loft where there was nothing eatable but a quantity of charcoal. On returning, they were disappointed in finding their *aquatic* friends of the loft in most admirable health and condition, and the charcoal nearly exhausted. They had partaken of nothing else during the long period of their confinement, and the fact being circulated and published in the journals of the day, gave rise to the practice of supplying these fowls with the article while un-

dergoing the fattening process, and which has now become common and almost universal in every part of the country where geese are raised and fattened for the market. Not only the goose, but domestic fowls generally, are greatly benefited by it.

For the New England Farmer.

POISON OF CHERRY LEAVES.

Mr. Editor :—Farmers are generally aware, I suppose, of the poisonous effects of the wilted leaves of the wild cherry, which are said to be, if eaten in any quantity, invariably fatal to cattle—or, at least, no remedy effectually neutralizing those effects is known among us here. But has it heretofore been known that there is danger, also, from the wilted leaves of the English, or cultivated cherry? A piece of experience I have just had, and which has occasioned me no little disappointment, looks that way certainly.

I was raising, this season, a very fine, promising heifer calf, nine weeks old last Monday, half Alderney and three-eighths Ayrshire, every mark upon which was good. For convenience of shade and to nibble the grass, unsuspicious of danger, I kept it tethered for some weeks, during the day, under some white-leaved cherry trees, in the front yard, where it became a cosset and playmate with the children, and, until the evening of the 4th, gave every manifestation of high vigor, growing rapidly, and being full of fun and frolic. The trees, meanwhile, had not been ascended for the purpose of picking the cherries. A week or more ago, however, the children began to get up into the trees after the fruit, and, in doing so, often broke off and dropped on the ground the little spurs on which clusters of cherries had grown. These spurs, with three or four leaves on each of them, for some days have been lying about on the grass in several places; but I never observed the calf eating them, though I saw it, once or twice, strip off and chew little pieces of bark from the boles of the trees. Meantime, I was teaching it to eat by putting pieces of carrot, sliced thin, into its mouth, and by giving it, occasionally, bits of young fodder-corn, (Stowell's evergreen.) But one symptom, of which, no doubt, I ought to have thought more, had occurred. For several days the calf had been noticed very costive, straining and showing considerable uneasiness whenever it had occasion to drop, its droppings being more like a sheep's than those of a calf. Still, no suspicion of the cause had presented itself to my mind, and I felt no alarm.

On the evening of the 4th, as has been stated, indications were observed of an alarming nature. Then, for the first time, on being led to the barn, the calf manifested no disposition to play, but moved sluggishly. That evening it sucked a very little, leaving most of the milk in the bag. The next morning, though manifesting some wish to get to the cow, it did not suck at all, but it poked its head about its dam's legs, and repeatedly put its mouth to the teats. Symptoms of partial blindness were also indicated. Advice was called, an injection of warm water and castile soap given, and castor-oil administered; but the effect was slight; only a few hardened fæces were dropped, and the animal continued to grow worse. On the evening of the 5th, additional advice from another more experienced person was sought; and he, observing a certain frothing about the mouth and gritting of the teeth, pronounced the creature poisoned; and, learning where I had kept the calf, gave me the first hint I had received of the dangerous nature to cattle of cherry leaves. He administered, that evening, as much as he could get down of half a pint of lamp oil, and again about the same quantity the next morning, (the 6th.) No effect appearing, in about an hour's time I gave another injection of warm water and soap, which produced a few hardened droppings, but no effectual relief. It may be well enough to state that I had a little practice of something like "*motorpathy*" in this case, as, finding the intestinal action sluggish, if not entirely destroyed, I hoped to restore it, and, at the same time, aid the operation of the physic, by gently working the abdomen with my hands—an operation which, in cholic, in the human species, is often highly efficacious. The difficulty, however, had got too far to be removed, though I think some effect in the way I intended was produced. Nature was now nearly exhausted. In a short time the poor creature began to tremble violently, then to move round and round, as if tipsy and crazy, moaning piteously, knocking its head the while against any obstacle that came in its way, and finally dropped down and expired. After death, the body was not opened, as I could find no one willing to do it. It soon began to bloat, and, as soon as could be conveniently, it was buried.

Now, Mr. Editor, does it appear clear to you, from the above statement, that the wilted cherry leaves, which the calf probably ate, were the cause of its death? Or was it something else, as others still assert? I have heard of the death of two or three calves in this town, this spring, in a manner equally sudden, and, if any thing, more inexplicable. Does wind, as some say, ever occasion death in calves? Respectfully yours,

Bolton, July 8, 1855. R. S. E.

Remarks.—From the above statement, we have no doubt, whatever, that eating the cherry leaves was the cause of the sickness and death of your favorite calf. Similar cases have been occasionally brought to our notice through many past years. This clear narrative of facts, by R. S. E., ought to operate as a caution to all, not to let their cattle have access to cherry leaves.

For the New England Farmer.

THE BUTTONWOOD TREES.

We have noticed in this section, this season, that the buttonwood, or buttonball trees, are more or less diseased. They began to leave out as usual, and after the leaves were about half out they began to dry up, so that some three-quarters of the leaves are dead. A few leaves on the top and outside branches are yet fresh. Trees of all sizes, from three inches to a foot and a half in diameter at the bole, are alike affected here. Occasionally we see a small tree that has escaped as yet. Some fourteen or fifteen years ago, these

trees were affected we think more or less through the country. Many of them died out entirely, while others recruited again the next season. I think some nine or ten years ago, also, they were affected in this section, in the same way. Whether the disease this season appears in other sections, we know not as yet.

Yours, &c., L. DURAND.

June 21, 1855.

GAS WATER FOR MANURE.

The lime used in purifying gas, and which is known by the appellation of "foul lime," is now extensively used as a fertilizing agent, and with excellent success, on most field crops. The gas water, another waste or refuse article produced in the process of manufacturing gas, is also an excellent fertilizer, but should be used with great caution. It is an ammoniacal liquor, and if applied to a surface in grass, will apparently scorch and burn up the herbage, although the next year the spot on which it was applied will be distinguished by great luxuriance and vigor of development. The refuse lime, through which the gas is made to pass in order to purify it from the sulphurated hydrogen, becomes impregnated with this article, and assumes in consequence, to a certain extent, the characteristics of hydro-sulphuret of lime. It contains at first, in a state of combination with it, a certain portion of ammonia, but as the carbonic acid gas of the lime combines with this article, it is converted into carbonate of ammonia, or volatile alkali. Ultimately, however, exposure deprives it of its ammonia, and none of it will be found in the lime. Foul, or refuse lime, is very repugnant to most insects, and to some is almost instantaneously fatal. It may be applied to vegetation in the same manner as gypsum, or used as an ingredient in compost. In either way it will prove a very efficient and salutary fertilizer.

ANALYSES.

The following table exhibiting the various constituents of several important products of the soil may not be uninteresting :—

	Wheat Straw.	*Barley Straw.*	*Oat Straw*
Potash	¼	3½	15
Soda	¼	1	15
Lime	7	10½	2½
Magnesia	1	1½	¼
Alumina	2½	3	¼
Oxide of iron	23½	¼	¼
Silica or flint	81	73½	80
Sulphuric acid	1	2	1½
Phosphoric acid	5	3	¼
Chlorine	1	1½	¼
Total	100	100	100

Corn contains, potassa, 20.87; phosphoric acid, 18.80; lime, 9.72; magnesia, 5.76 per cent. Grass abstracts from the soil no potash. It contains, carbon, 45 per cent.; hydrogen, 5; oxygen, 38; nitrogen, 1½, and ashes, 9 per cent. There are few vegetables which contain, probably, so large an amount of potash as the pea—i. e., the haulm or vine. It has been ascertained by accurate analysis, that the quantity of this constituent is 53 per cent. The pea, therefore, where the haulm is rigidly economized and directly returned to the soil, must be contemplated in the light of an ameliorating crop, and one, the systematic cultivation of which would add millions to our agricultural wealth, and prove ultimately a most potent auxiliary in the resuscitation of the soil.

EXTRACTS AND REPLIES.

GUANO—OLD BONES.

I have read much in the *Farmer* about guano. many of the farmers think that it does not pay, but I think it pays well on my farm. I applied 550 lbs. on an acre and a half of worn-out (light) land, without any other dressing, and planted it with corn. It was injured very much by the drought, but I harvested 68 bushels of good ears of corn, and 20 bushels of ears of small corn, which was worth at least half-price of good corn, making 88 bushels of ears. Allow two bushels for shrinkage, and two bushels of cars to make a bushel of shell corn, and I have 35 bushels of shell corn, which is worth now at least $1,25 per bushel; making $43,75 worth of corn. I applied it to other lands for corn, potatoes, oats and wheat, with about the same result.

I read in the *Farmer* a polite invitation for farmers to experiment with old bones and horse manure. I will give my experiment, and should like to here the result of others through your columns. Last spring I made a layer of horse manure about ten inches deep, a layer of bones, and a layer of wood-ashes sufficient to cover the bones, and after the heap was finished, I covered it over well with swamp mud, and let it lay about six weeks, when it got so hot I thought it best to move it over. I found the bones about two-thirds dissolved; I covered it again with the mud that had been taken off, and let it lay six weeks longer, and shovelled it over again; I found that the bones had not dissolved any since they were shovelled over the first time. Whether it was owing to moving them, or to the dry weather, I cannot tell.

B. W. GAY.

New London, 1855.

COAL ASHES—CHIP MANURE—LIME.

MESSRS. EDITORS :—I take much *interest* in farming. In fact, I may truly say I *love* it; but I know but a little about it, and that little more in theory than in practice. My *business* is merchandizing; still, if every thing should go to my liking, I may, at some time in the future, know more of it practically than at present. Occasionally, now, I steal away from other duties, and seize the hoe. This is my pleasure, my recreation, my "hobby." It is said that all men have their "hobbies," and mine, perhaps, is as innocent as any that can be selected.

Being a "know-*nothing*," so far as farming is concerned, allow me to ask for some information, that I may know *something*.

Are coal ashes of any value to apply to land or vegetation? If so, what are the most advantageous modes of application? (*a.*)

Which is the cheapest and most advantageous fertilizer for sandy land, house ashes that are good, at 15 cents a bushel, or a good load of common manure, at $1,25 per load, both delivered in the field? (*b.*)

Which impoverish the land the most, potatoes or corn? (*c.*)

Is chip manure, mixed with barn-yard manure, a good fertilizer? (*d.*)

What is the relative strength of chip manure, compared with barn-yard manure? Or, in other words, will one load of the latter produce the same results as four of the former? (*e.*)

Would you recommend the use of lime to sandy and much worn soil? And if so, how many bushels to the acre? At 25 cents per bushel for good stone lime, would it be more advantageous than a good load of manure at $1,25, both delivered in the field? (*f.*)

Is good muck, without being carted into the barn-yard, but simply spread on plowed, sandy and worn land, in the fall, *valuable*? (*g.*)

By giving me information on these points, you will much oblige a reader and INQUIRER.

Burlington, Vt., June 9, 1855.

REMARKS.—We should be glad to reply to the queries of our correspondent at length, but an affection of the eyes, probably occasioned by reading in the cars, and the long-continued use of them by lamp-light, has prevented us from reading or writing much for several weeks.

(*a.*) Coal ashes have been found valuable in the garden and on the field crops. We have published several notices of their highly beneficial results. They should be sifted clear from all coals and cinders.

(*b.*) At $1,25 per load, 20 loads of manure, at 34 bushels each, would cost $25,00. At 15 cents a bushel, 166⅔ bushels of ashes would cost $25. Now if the sandy land has, within a year or two, received a dressing of barn manure, we should greatly prefer the ashes; if it has not, we should prefer the manure. No definite rule can be laid down, because circumstances vary so much.

(*c.*) It is a question not well settled. We think corn does.

(*d.*) Good, if the chips are well rotted, but excellent, when air-slaked lime is added, to dig in about fruit trees.

(*e.*) Cannot answer it. You must experiment, when you have opportunity, and let us know the result.

(*f.*) As a general thing, the manure is the most valuable. If the land is acid, and as an occasional use, the lime would be best.

(*g.*) It would be very valuable if it had been dug out a year or two, and overhauled two or three times.

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PAY THE CHILDREN

Six cents a quart for the plums that daily fall from the trees; burn them, and destroy the curculio maggot deposited in every one of them.

Watch the falling apples, nearly half grown; out of a bushel you can scarcely find one free from the curculio worm. Could these be gathered up by children or pigs, (I mean no invidious classification,) before the maggot goes into the ground, his species would be lessened.

"A jewel of gold in a swine's snout," or some baser metal, would be required to protect the land against his rooting propensities, but would it not pay? It is simply putting *rings* into the *nose* instead of the ears. P.

July 5, 1855.

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THE CUT WORM.

A subscriber from Lowell inquires in your last paper, "what is the best preventive for the grub or cut worm, upon flower and other roots." I was formerly much annoyed by cut worms destroying plants I had transplanted, particularly the tomato and cabbage; in some cases a large portion of them would be bitten off at the surface of the ground. Some years since, I tried the experiment of wrapping around the stem of each plant, before transplanting, a piece of soft paper, extending from a short distance above the root, to the first leaf, and found it a perfect remedy. It is done very quick, and the paper lasts until the plant is large enough to take care of itself.

Cambridge, July 11, 1855. O.

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REMEDY FOR GRUB WORMS.

MR. EDITOR:—"Verdant Farmer" wishes to learn through the columns of your invaluable paper, whether there is a remedy for the grubs, which he says are destroying whole fields of corn, pumpkins, and young hops in his vicinity. An instance once came under my observation which I will relate, as it proved an effectual remedy.

A neighbor once had a field of corn that was nearly destroyed by the grubs, and by way of experiment, he applied plaster thoroughly saturated with spirits of turpentine; the result was, the corn resumed its healthy color, (one shade darker than the original) grew rapidly, eared well, and was to all intents and purposes a good field of corn.

The plaster should be allowed to dry after having been saturated, and care should also be used, that it does not come in immediate contact with the corn, or it may prove too strong.

The above was the white grub that eats off the roots, and not the darker one, though I think it would answer for both. C. F. S.

New Canaan, Conn., July 3, 1855.

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VETCHES.

Mr. BETHEL, of Queeche, Vt., states that vetches should be cultivated as we cultivate peas when sown broadcast; that a few oats sown with them will prevent lodging, and that they remain green for a long time and make excellent fodder.

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REMEDY FOR APPLE-BORER—TROUT AND GOLD-FISH.

FRIEND BROWN:—My object in addressing you at this time, is to inform your numerous subscribers and readers of the *Farmer*, of a new remedy for the grub or apple tree borer. Being near the sea-shore one day visiting a friend, I noticed the thrifty appearance of his young apple trees,

and upon inquiring the cause, he informed me that he mulched them with rock weed, and that the borer never troubled them. Having just set out an orchard, I concluded to try the remedy; I have tried it for the last three years, and have not found a borer around one of them during the time, while my neighbors that do not use the rock weed, are losing their trees by their ravages. The mode of applying it is to dig the earth from around the collar of the tree, and then for a tree four or five years old, use from a peck to a half bushel of the weed, laying it upon the top of the roots immediately around the trunk of the tree. For larger-sized trees use about the same proportion. I would state that my trees are set out upon greensward, and as a matter of course, the borer would be more apt to trouble them than if cultivated among. I have never known a tree attacked by the borer, where the rock-weed has been applied.

I have an artificial pond that I wish to stock with fish; will you please inform me if trout and gold-fish will live peaceably together. I have already trout in it, and wish to add gold-fish, if they will do well together.

Yours respectfully,

Yarmouth, Me., June 23, 1855. O. A. H.

Remarks.—Will some one who has had experience reply to the queries about the fish?

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DITCHING.

Mr. Editor:—Being in possession of a small lot of poor land situate in western Massachusetts, consisting of stony hill and swampy intervale, I would inquire through the medium of your valuable paper the method of constructing drains of small stone.

What sized stone, how many to the rod, how deep, wide, and far apart the drains, and how much fall to the rod?

Is it indispensably necessary to use drain tile?

How long will they last if well laid?

What is the greatest objection to this kind of drain? A Tiller of Stony Soil.

June 11, 1855.

Remarks.—It would require an essay on the subject to answer the above questions. They are pertinent, however, and "A Tiller of Stony Soil" ought to understand the whole matter, if he intends to continue its cultivation. Being on a stony soil, he has plenty of the best material for the purpose of drainage. We will do better than to answer his questions with our accustomed brevity by advising him to purchase Munn's *Practical Land Drainer*, in which he will find the most approved system of drainage, and the scientific principles on which they depend, and are explained, and their comparative merits discussed, with directions for making drains, and the materials of which they may be constructed.

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ACID FROM OAK TIMBER.

We are not able to give S. W. S. any information whether the acid from oak timber where staves are steamed, is good for anything or not.

INSECTS ON APPLE TREES.

I have quite a number of young apple trees, and have noticed numerous insects on them; they collect on the ends of the twigs in numbers, are about the size and shape of a louse, and of a green color, and the small ants or pismires are thick around them. What I wish to know is, whether they are destructive or not? If so, by what means can they be destroyed?

Exeter, N. H., 1855. J. D.

Remarks.—Plant lice, or *Aphides*, are somewhat destructive. They may be destroyed, in some measure, by an application of whale oil soap, through a syringe, or by gently tapping the limbs of valuable plants and shaking them into bowls of water. The ants are among the aphides to collect a sweet, sticky fluid which they eject. See Harris on "*Insects Injurious to Vegetation*," for a full and exceedingly interesting account, pages 205 to 214.

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REMEDY FOR CHAFES AND GALLS ON CATTLE AND HORSES.

One ounce of blue vitriol (sulphate of zinc) dissolved in four quarts of water. When horses are chafed by the saddle, or oxen are galled by the yoke, bathe the wounded parts freely several times a day, and they will rapidly heal under its use. In these times, when it is difficult to get rum to wash animals that are chafed, it is well for farmers and stable-keepers to keep a jug of the above remedy ready prepared for use. It is much better than rum, which is so generally used for the same purpose. R.

Concord.

For the New England Farmer.

HAY CAPS.

Mr. Editor:—*Sir*,—Permit me through your respectable agricultural journal to advise my brother farmers to supply themselves with a most useful and economical article of covers to protect their hay against rain and heavy dews, which I have fully tested for the last five years to my entire satisfaction. They should be made in the following manner, namely:

Stout unbleached cotton sheeting should be purchased (such as is made by the Lyman Mills Company at Holyoke) from 36 to 42 inches wide—the latter is the best—which should be cut into lengths of from 40 to 45 inches,—the latter is the most useful—a much larger size would be objectionable, as they would exclude the air from the hay cocks.

To make 40 of them (and no extensive farmer should have less than 100) would require a gallon of linseed oil, which should be simmered with 4 pounds of bees wax, and a quart of japan should be added after it is taken from the fire. When cold, the mixture should be about the thickness of lard in summer, if not, more oil or wax may be added. The cloths should then be "payed over," to use a sea expression, with the hand or a small piece of shingle, on one side only, and then dried in the sun. When they are dry, the females of the family will cheerfully sew into the corners a stone of the weight of about seven or eight ounces, which completes the affair.

No hemming is required, as the wax and oil will keep the edges sufficiently firm.

I don't think I am extravagant in saying that they will pay the cost in one season, and will last ten years, if taken good care of. Within the last week we have had one entire rainy day, when my neighbors' hay was thoroughly soaked, while mine was as safely covered as if it had been packed away in the barn. My manager thinks that one-third of the cost of some new covers just made, were paid for on that day.

Large covers, made in the same manner, to cover the whole of a load of hay, with heavier weights, of course, would be an admirable protection against sudden showers; but, as I have not often made hay at a distance from home, I have never required them.

Respectfully yours,

EDWARD CLARKE.

Round Hill, Northampton, July 11, 1855.

CUTTING GRAIN.

MR. EDITOR:—In harvesting grain of all kinds, I am convinced from my own observation and experience, that we do not commence early enough. Grain that stands until it is dead ripe—especially wheat—makes darker flour than that which is cut when in the milk, or about the time the kernels begin to glaze. Last year, in order satisfactorily to test the correctness of this position, I cut one-half of a piece of wheat just at the time the grain was beginning to harden, and allowed the remainder of the piece to stand till it had matured. The grain cut in the milk, was bound in small bundles, and stocked on grass lands, where it remained for a fortnight, being protected from rain and heavy dews, by caps, but exposed to the sun by removing them during the day-time, when the weather was clear and fair. Both parcels were threshed separately, and weighed, and the first cut was found to be in every respect superior to that cut last; the kernels were finer in the sample—more plump and farinaceous, the skin thinner and whiter, and the general appearance so different that, when placed beside the other, it did not look like the same variety of wheat.

A like experiment on oats resulted in a similar way; and I am confidently persuaded that early cutting will be found in every respect preferable to late cutting. Another, and by no means unimportant consideration, is the superiority of the straw for fodder. Grain straw that stands until it is perfectly or "dead ripe," contains but little nutriment; all the saccharine juices are abstracted, and little except the fibrous substance of the plant remains; but when it is cut early, and properly cured, there is nearly as much alimentary matter in it, as in hay. Oat straw is generally regarded—and with justice—as of much greater value for feeding purposes, than the straw of wheat, barley or rye. Early cutting, with reference to the harvesting of this grain, is therefore of more consequence, so far as the straw is concerned, than it is of either of the varieties. But in all cases, the practice possesses a decided advantage over the old method.

Any person who is at all skeptical on this point, can, with a very little difficulty, satisfy himself of its correctness; he has but to make the experiment. The straw of my wheat—that which was first cut—was all consumed by my cows, while that which was left till ripe, was rejected. —*Germantown Telegraph.*

For the New England Farmer.

WHO WOULD NOT BE A FARMER.

BY MYRA MYRTLE.

Who would not be a farmer, and till the grateful soil,
Which yields in golden harvests rich recompense for toil?
Who would not be a farmer, and work the precious mine
Which feeds the hungry nations, yields food for all mankind?

Who would not be a farmer, and walk his own domain,
Behold his cattle grazing, and his fields of waving grain;
List to the wild-birds' warblings, as they flit from tree to tree;
They the farmer's feathered minstrels, his their gushing melody.

Who would not be a farmer, live in a rural cot,
Inhale the balmy breezes, with healthful odors fraught;
Possess a gentle, virtuous wife, and little folks a few,
Take an *agricultural paper*, and *pay the printer*, too?

Somerset, July 5, 1855.

For the New England Farmer.

ABOUT TRAPPING WORMS.

MR. EDITOR:—I perceive, by the *New England Farmer* of June 23d, that "C. Q." recommends the trapping of worms. I hardly know whether he intended to joke or not, for, after reading the article referred to, I thought I would try the experiment. After making the holes per direction, I tumbled a "fellow" (rather odd) into each hole, and, if the original experimentor, "C. Q." had been there, he would have wondered, for no sooner in, than, to show their smartness, they turned "head over heels" two or three times, then, by watching all of them, I saw they had suddenly disappeared. I began to think the paper is not to be relied on, for there were no birds near, nor did the sun draw them up, nor did starvation put an end to them. I rather think that "C. Q." must have been a grave-digger, and lying down to try the size of the grave he was digging, finds such a snug fit that he can't get out, and lying there "twenty-four hours," begins to think that a hot sun and starvation will kill any worm. This is reasoning in a practical manner, and there is a great deal of such reasoning in the farming journals of the day. All have some wonderful working plan, something no one else can follow but themselves. About the middle of June, I find the lumps of manure plowed in in the spring to be impregnated with almost a countless number of worms. Now, what is best to do with the manure? And what is best, and what can a farmer afford to buy instead of home-made manure? E.

REMARKS.—If home-made manure is thoroughly worked over and made fine, there will be few lumps in which the worms may congregate.

The farmer, in our opinion, cannot afford to purchase any manure *instead* of the common barn manure, only under peculiar circumstances; such as where the land is difficult of access, or far from home, or where he has team and help sufficient to cultivate more land, but has not manure. In such cases, he will be quite likely to be re-

munerated if he uses guano, superphosphate, bone-dust, ashes, plaster, potash, or something else.

KETCHUM'S ONE-HORSE MOWER.

The liberal propositions of the Massachnsetts Society for the Promotion of Agriculture will do much towards settling the questions, whether the mowing machine is really to be a benefit to the farmer, and which is the best, among the number already presented to the public. We had seen but one kind in operation, KETCHUM'S, and that with results not altogether satisfactory.

Last week we took a one-horse machine into our fields, and on Friday set it in motion on an oblong strip containing about one acre and three-quarters. The machine was put together by a young man who did it for amusement. All the bearings were well oiled with pure sperm oil, and we mounted the seat, hoping that our friend LINCOLN'S strong testimonials in its favor would be verified in our own mind, but we must confess with many doubts.

But with a strong, noble horse, worth more than Richard's kingdom was to him, away we went, the jolly clattering of the cogs and knives arresting the attention of the neighbors, and soon populating the field with an interested group of observers.

In two hours, including the stops for the horse, and for explanations to by-standers, the piece was handsomely mowed. The grass was a thin red-top in some places, in others a pretty thick stand of red-top and herds-grass, and affording a fair trial for the machine. On the 17th, we used it on a hill-side where, probably, double the power was required that would be on level ground—but with equal success.

We have no means of speaking of the comparative merits between this and other machines, but these trials justify us in speaking favorably of this machine. It is susceptible, we think, of some improvements, which it will undoubtedly receive.

The horse was not worried any more than he was in plowing old ground ten inches deep, in the spring, with another horse by his side. We have no doubt but this mower will prove of great benefit to the farmer. Other trials will be made which we shall report, and shall mention also some of the difficulties usually encountered, and their remedies.

ATMOSPHERIC AIR—when it enters the lungs, contains about two gallons of carbonic acid in every five thousand of air. When it escapes from the lungs, it contains two gallons in every one hundred. From this, we can see how much solid carbon is continually thrown from the system, and how much must necessarily be constantly supplied.

TRIAL OF MOWING MACHINES.

The rival Mowing Machines that have come into use within a few years, are being put to the test for the premiums of $600, offered by the State Agricultural Society, and $200 by the Essex County Society, for those that shall be able to perform the most and best work. Yesterday a trial was made in Salem. On account of the great crowds that have collected at other trials, no public notice was given, yet some two or three hundred persons were on the field. Six persons entered as competitors, with three separate patents, viz :—

Robert Brookhouse, Salem, Manny's Machine.
Horace Ware, Marblehead, " "
Richard P. Waters, Beverly, Ketchum's "
S. C. Pitman, Swampscot, " "
George B. Loring, Salem, Russell's "
S. A. Merrill, Salem, " "

The parties all have large farms, with extensive mowing grounds, where they proved them. Mr. Brookhouse has a farm of some 200 acres; Horace Ware is one of the first and best farmers in the county; R. P. Waters is owner of the Cherry Hill, formerly the White farm, and was the first to use the mowing machine in this county; Mr. Pitman is on the place of Col. Stetson, of the Astor House; Dr. Loring has the Pickman farm, where the trial was made yesterday, of 400 acres, 150 of it mowing grounds; and Mr. Merrill is from the celebrated Derby estate. The ground selected was a level piece of mowing, producing about two tons to the acre, and about a quarter of an acre was allotted to each. They completed the work in the order in which we have arranged the names, as follows :—The first in 20 minutes; 2d in 14; 3d in 20; 4th in 8½; 5th in 9; and 6th in 8½. The first was accidentally delayed several minutes; and the third had very spirited and somewhat unmanageable horses; and the second, who was next longest, may, upon the whole, have been as successful as any of them. At this trial they all had two horses; and with the same team and machine on Saturday last, Mr. Ware mowed 10 acres in little over seven hours.

We shall not attempt to describe the machines. They may all have defects that will be remedied. The most essential difference we noticed was that the cutters in Russell's patent acted more fully as shears, and would seem to cut easier and better. They all mowed as clean and close as could have been done by hand, and the poorest of them would be so great an improvement over the scythe, as to produce a perfect revolution in hay-making. The obvious advantages are, 1st, in the great saving of manual labor, one man being capable of performing as much work as a dozen mowers; 2d, it enables persons, by cutting their grass in less time, to make hay when it will be best, and not have it injured by delay; 3d, it can as well be cut after as when the dew is upon it, and the hay can be made in shorter time; and 4th, by the grass dropping where it stood, instead of being thrown into swath, it saves the spreading.—*Newburyport Herald.*

BREATHING.—A healthy person takes in about a pint of air at a breath. He breathes a thousand times in an hour, and requires about fifty-seven hogsheads of air in twenty-four hours.

Professorship of Agriculture.—Dr. William Terrell, an eminent agriculturist, and one of the wealthiest and most public-spirited citizens of Georgia, died at his residence in Sparta, Hancock Co., in that State, on the morning of 4th of July. The deceased has especially entitled himself to the gratitude of Georgia and of posterity by the donation of twenty thousand dollars to Athens College, for the establishment of a Professorship of Agriculture. Called by his name, it will, for all time, be his monument.

LADIES' DEPARTMENT.

USEFULNESS.

Not unfrequently, have I heard women who were surrounded by all the advantages that outward wealth can give, say with sad and timid self-reproach, "I ought to be happy. It is my own fault that I am not. But, I know not how it is, I cannot get up an interest in anything." When I remind them that Richter said, "I have fire-proof perennial enjoyments, called employments," few have faith in such a cure for the inanity of life. But the only certain way to attain habitual content and cheerfulness, is by the active use of our faculties and feelings. Mrs. Somerville finds too much excitement and pleasure in her astronomical investigations to need the poor stimulus of extravagant expenditure, or gossipping about her neighbors. Yet the astronomer discharges all womanly duties with beautiful propriety. She takes nothing from her family. She merely gives to science those hours which many women in the same station waste in idleness and dissipation.

What can be more charming than the example of Mrs. Huber, devoting herself to the study of natural history, to assist her blind husband in his observations? Or of Mrs. Blake, making graceful drawings in her husband's studio, working off the impression of his plates and coloring them with her own hand? Compare a mere leader of ton with the noble German Countess, Julia Von Egloffstein, who dared to follow her genius for art, though all the prejudices of people in her own rank were strongly arrayed against it. Mrs. Jameson says, "When I have looked at the Countess Julia in her painting-room, surrounded by her drawings, models, casts—all the powers of her exuberant, enthusiastic mind, flowing free in their natural direction, I have at once felt pleasure, admiration and respect." The same writer says, "In general the conscious power of maintaining themselves, habits of application and manual industry in women, the application of our feminine superfluity of sensibility and imagination to a tangible result, have produced fine characters."

That woman is slowly making her way into freer life is evinced by the fact that, in a few highly cultivated countries, literature is no longer deemed a disparagement to woman, and even professed authorship does not involve loss of caste in society. Maria Edgeworth, Mary Howitt, Frederika Bremer, our own admirable and excellent Catharine Sedgwick, and many others widely known as writers, were placed in the genteel ranks of society by birth; but they are universly regarded with increased respect, because they have enlarged their bounds of usefulness, to strengthen and refresh thousands of minds.

Dorothea L. Dix, when she retired from schoolteaching because the occupation disagreed with her health, had a competence that precluded the necessity of further exertion. "Now she has nothing to do but to be a lady and enjoy herself," said an acquaintance. But Miss Dix, though characterized by a most womanly sense of propriety, did not think it lady-like to be useless, or enjoyment to be indolent. "In a world where there is so much to be done," said she, "I felt strongly impressed that there must be something for me to do." Circumstances attracted her attention to the insane inmates of prisons and almshouses; and for several years, she has been to them a missionary of mercy, soothing them by her gentle influence, guiding them by her counsel, and greatly ameliorating their condition, by earnest representations to selectmen and legislators. Her health has improved wonderfully under this continual activity of body, mind and heart.

Frederika Bremer, in her delightful book called "Home," tells of one of the unmarried daughters of a large family who evinced similar wisdom. She obtained from her father the sum that would have been her marriage portion, established a neat household for herself, and adopted two friendless orphan girls to educate.

Use is the highest law of our being, and it cannot be disobeyed with impunity. The more alive and earnest the soul is by nature, the more does its vitality need active use, and its earnestness an adequate motive. It will go well with society when it practically illustrates Coleridge's beautiful definition: "Labor should be the pleasant exercise of sane minds in healthy bodies."

But to fill employments with a divine life, they must be performed with reference to others; for we can really enjoy only that which we impart freely. The following extract from one of Beethoven's letters, exhibits the human soul in the noblest exercise of its immortal powers: viz.: embodying the highest conception of art, from a genuine love of art, warmed by the motive of doing good to others. He writes thus: "My compositions are well paid, and I may say, I have more orders than I can well execute. I ask my terms and am paid. You see this is an excellent thing; as, for instance, I see a friend in want, and my purse does not at the moment permit me to assist him, I have but to sit down and write, and my friend is no longer in need."—*Mrs. L. M. Child.*

Currant and Gooseberry Pies.—Green currants and gooseberries, for pies, are not apt to be sweet enough, without the sugar is scalded in before they are baked, as the juice of the currant is apt to run out while they are baking and leave the fruit dry. Stew them on a moderate fire, with a teacup of water to a couple of quarts of currants; as soon as they begin to break, add the sugar, and let it scald in a few minutes. When baked without stewing, put to each layer of fruit a thick layer of sugar. There should be as much as a quarter of a pound of sugar to a pint of currants, or more, if you wish it.—*Ohio Farmer.*